

DOCUMENT RESUME

ED 297 427

EA 020 140

TITLE A Study on Some Critical Aspects of Secondary Education in the Countries of Asia and the Pacific. Research Proposal. Report of a Regional Workshop (1st, Tokyo, Japan, June 17-July 10, 1986).

INSTITUTION National Inst. for Educational Research, Tokyo (Japan).

REPORT NO NIER-RW/86/7/300

PUB DATE Jul 86

NOTE 80p.

PUB TYPE Reports - Descriptive (141) -- Collected Works - Conference Proceedings (021)

EDRS PRICE MF01/PC04 Plus Postage.

DESCRIPTORS Comparative Analysis; *Developing Nations; *Educational Policy; *Educational Research; Educational Trends; *Foreign Countries; Research and Development; Research Design; Research Needs; Research Proposals; *Secondary Education

IDENTIFIERS Australia; Bangladesh; China; India; Japan; Malaysia; Nepal; New Zealand; Pakistan; Papua New Guinea; Philippines; Singapore; South Korea; Sri Lanka; Thailand; Western Samoa

ABSTRACT

A regional workshop on "The Study of Secondary Education in Asia and the Pacific" was attended by 18 participants from Australia, Bangladesh, China, India, Japan, Malaysia, Nepal, New Zealand, Pakistan, Papua New Guinea, the Philippines, the Republic of Korea, Singapore, Sri Lanka, Thailand, and Western Samoa. The major objective of the conference was to develop a design for a joint comparative study on secondary education in the Asia and Pacific region. This document comprises the final report of this conference, a framework for undertaking such a joint comparative study. Part A is a synopsis of reports on secondary education from each of the participating countries, followed by an outline of the major issues identified. Part B presents the research design, whose objectives are as follows: (1) to provide a source of research data on selected areas of secondary education to participating countries; (2) to identify areas of major concern and major trends in secondary education; (3) to identify and document strategies that have been successful in solving problems in secondary education; and (4) make recommendations for further research in secondary education. The questionnaire that will be used to gather data is also included, and lists of participants and working groups are appended. (TE)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED 297427

N I E R

**A Study on Some Critical Aspects of
Secondary Education in the Countries
of Asia and the Pacific**

- Research Proposal -

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☒ This document has been reproduced as
received from the person or organization
originating it.

☐ Minor changes have been made to improve
reproduction quality.

• Points of view or opinions stated in this docu-
ment do not necessarily represent official
OERI position or policy.

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

T. Kanaya

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

EA 020 140

National Institute for Educational Research, Tokyo, Japan

A Study on Some Critical Aspects of
Secondary Education in the Countries
of Asia and the Pacific

- Research Proposal -

Report of a Regional Workshop
17 June - 10 July 1986

Section for Educational Co-operation in Asia
National Institute for Educational Research (NIER)
Tokyo, Japan

July 1986

© NIER 1986

Published by

the Section for Educational Co-operation in Asia
National Institute for Educational Research (NIER)

5-22 Shimomeguro 6 Chome, Meguroku, Tokyo, Japan

CONTENTS

Introduction :	1
----------------	---

Part A:

Section I : Synopsis of Country Reports

Australia	5
Bangladesh	7
China	8
India	10
Japan	12
Malaysia	14
Nepal	15
New Zealand	17
Pakistan	18
Papua New Guinea	20
Philippines	21
Republic of Korea	23
Singapore	24
Sri Lanka	26
Thailand	28
Western Samoa	30

Section II : Analysis of Major Issues Identified	33
--	----

Part B:

Section I : Research Design	35
-----------------------------	----

Section II : Questionnaire

Explanatory Note	41
Organization	42
Enrolment	51
Curriculum	54
Teacher Preparation	64
Assessment	67

Recommendations	73
-----------------	----

Annex I : List of Participants	75
--------------------------------	----

Annex II : List of Working Group Members	78
--	----

INTRODUCTION

The National Institute for Educational Research (NIER), Tokyo, Japan in view of the ever mounting complexity of issues of secondary education in the region, and in consultation with the Asian Centre of Educational Innovation for Development (ACEID), Unesco, Bangkok, decided to initiate a joint comparative study project which would last for 2 to 3 years for the analysis of critical aspects of secondary education in the context of national development.

The First Regional Workshop of the above project: "the Study of Secondary Education in Asia and the Pacific" was organized by NIER from 17 June to 10 July 1986 within the framework of the Asia and the Pacific Programme of Educational Innovation for Development (APEID).

The objectives of this workshop were:

- (1) To exchange information on the state of the art of secondary education in participating countries;
- (2) To identify critical aspects of secondary education in the context of national development; and
- (3) To develop a design for the joint comparative study on secondary education in the region.

Participation

The Regional Workshop was attended by 18 participants from Australia, Bangladesh, China, India, Japan, Malaysia, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Singapore, Sri Lanka, Thailand and Western Samoa. The list of participants is given in Annex I.

Inauguration

The workshop was formally opened by Mr. Takehide Yokoo, Deputy Director-General of NIER. While expressing the wishes of the Director-General for the success of the workshop, he wished that the workshop would, having considered the problems and issues of the participating countries, come up with a suitable and an acceptable design for the study of secondary education in the countries of the region.

Mr. Akiyuki Tahara, Director, International Educational and Cultural Exchange Division, Bureau of Science and International

Secondary Education

Affairs, Ministry of Education, Science and Culture, Japan welcomed the participants on behalf of the Ministry of Education as well as the Japanese National Commission for Unesco.

Officers of the Workshop

The workshop elected the following office bearers:

Chairperson: Mr. M. P. Prabhakar (Malaysia)
Vice-Chairperson: Mr. Arch Gilchrist (New Zealand)
Rapporteur: Mr. M. M. Premaratne (Sri Lanka)
Group Chairpersons: Dr. Robin Chapman (Australia)
Prof. Arjun Dev (India)
Mrs. Karoline Fuatai (Western Samoa)

Organization of the Workshop

The workshop met in plenary sessions for the presentation of country papers and for the discussions of group findings, with the final plenary session being devoted to the adoption of this report.

In order to give participants adequate opportunity to present their country's concerns on secondary education, and to enable greater contributions to discussions that would transpire from such concerns, the workshop divided itself into 3 working groups. (See Annex II for the composition of the groups.)

The workshop synthesized the major concerns of the participating countries and analyzed their common problems and issues in respect of secondary education. These problems were categorized under the following major headings:

- (1) Organization;
- (2) Enrolment;
- (3) Curriculum;
- (4) Teacher Preparation; and
- (5) Assessment.

The workshop developed a research design for a joint study of secondary education among the participating countries of APEID. The aspects considered under each of problem areas mentioned above were further elaborated as a questionnaire and this forms a part of the research design.

The Report

A draft report was presented at the concluding session of the workshop and was adopted with some modifications. The suggested modifications and corrections have been incorporated in this final report.

This report is published to provide a basic framework for undertaking a joint comparative study on secondary education in the region of Asia and the Pacific. It is hoped that all the countries participating in APEID will undertake this joint study within the scope and framework described in this report, and also participate in the meeting to be held at NIER in 1987 for the comparative analysis of the outcomes of the study conducted in each participating country.

Part A

Section I

SYNOPSIS OF COUNTRY REPORTS

Participants to this workshop were required to prepare a short paper on the position of secondary education in their respective countries, covering the following aspects:

- (1) general status of secondary education; in terms of objectives/goals, structure and curriculum; and
- (2) major problems, issues and emerging trends of secondary education.

These paper were further summarized with the consent and approval of the participants for the preparation of this chapter, the purpose of which is to provide background information that will help the reader to understand and appreciate the reasons for many of the differences and similarities that exist in the countries participating in this workshop.

It should be noted that no attempt was made by the secretariat to edit the summaries with respect to content and styles of presentation in order to retain the country flavour of each presentation.

Australia

In Australia, governments in the six States and the Northern Territory are responsible for school systems, while the Commonwealth Government has responsibility for schools in the Australian Capital Territory. Most State and Territory Governments have established in recent years committees of enquiry into secondary education, with the result that substantial changes are currently being undertaken. Because of the variations that do exist in provisions for secondary education throughout the nation, it is only possible to make broad generalizations.

School councils or boards have the responsibility in some school systems for making decisions about educational programmes within policies or guidelines established by government. Recent committees of enquiry have recommended reforms to curriculum objectives which were designed to achieve greater flexibility and provide students with a general education involving skills for participation in a modern society.

Secondary Education

After a primary or elementary education of six to seven years, the structure for secondary education in Australia generally involves six years with variations provided through Year 7 - 10 high schools or Year 11 - 12 secondary colleges or senior secondary schools. Compulsory attendance tends to be until age 15. Formal examinations are often conducted at Year 11 - 12, with the examinations and subject requirements being accredited by specialized agencies and often serving as pre-requisites for tertiary colleges and universities.

Most schools are co-educational providing the traditional comprehensive range of subjects with specialist facilities in music, drama, science, technical or vocationally-oriented programmes, home economics and physical education.

A common problem experienced by school systems throughout Australia arises from high rates of youth unemployment, changing demands of the labour market and increases in school retention rates. With the assistance of funding from the Commonwealth Government, conspicuous efforts are being made to increase the percentage of students staying at school until Year 12. Related to this issue is the need to provide a secondary education for a wider range of students and not only the minority proceeding to tertiary studies. The expansion of access to a general education has been directed particularly to minority ethnic groups and girls. In some school systems, special attention has been given to encouraging the community to participate in decision-making at school and system levels. The decline in total enrolments in secondary schools has created concern in some areas about the continued viability of schools and the need to rationalize school provisions. A further issue being addressed involves the integration of students with disabilities into the mainstream of regular secondary schools.

As a result of the various committees of enquiry being established, one common trend has been the almost continuous review of curriculum and structures for secondary education. There has been an expansion of work experience programmes, computer education and link courses between schools and colleges of technical and further education. Some interest is also being shown in the continuity of provisions for schooling from the preparatory year through to Year 12.

While all school systems in Australia are coping with a range of problems, there is an encouraging prospect for the future characterized by a determination to implement organizational reform which will provide increased flexibility and to develop arrangements which will enable young people to have challenging and satisfying experiences while students are in secondary education.

Bangladesh

Secondary education is a very important stage in the education set-up. It is the second stage of our educational structure. It mainly caters for adolescents.

The aims of secondary education as stated in Bangladesh National Education Commission Report are: (a) to expand and consolidate the basic education given at the primary stage, (b) to develop progressive and honest personality committed to a purposeful and well balanced life, (c) to supply the required skilled and conscientious manpower necessary to accelerate the country's economic development, and (d) to prepare meritorious pupils for higher education according to their merit and inclination.

Structure: The secondary level of our education consists of three stages; Junior Secondary, Secondary and Higher Secondary. Junior secondary stage includes classes VI - VIII, secondary stage includes classes IX - X and higher secondary stage includes classes XI - XII. In other words, the structure of secondary education as a whole is 3-2-2. There is no public examination up to the grade VIII. However, there is a country-wide scholarship examination and merit scholarships are given to the successful candidates. At the end of secondary (class X) and higher secondary (class XII) there are two public examinations known Secondary School Certificate (SSC) and Higher Secondary School Certificate (HSC).

Curriculum: The curricula and textbooks now in use in the primary, junior secondary and secondary stage of education were introduced in 1978, 1980 and 1981 respectively. The curriculum structure is uniform at the junior secondary stage where the basic programme is for general education. However, a new subject "Work-Oriented" education is added at this level as an integral part of general education. Before 1983 the courses of study at the secondary stage were diversified. Now, it has been reduced into two streams, i.e. humanities and science. The Curriculum Committee in its report prescribed science and work experience as compulsory subjects at this stage, but their implementation has been delayed for want of properly qualified teachers and physical facilities. Therefore, a revised curriculum was prepared for this stage which is now followed. Higher secondary curriculum is diversified into three main streams, viz. humanities, science and commerce. There are also other streams like home economics and music.

Problems and Issues: Drop-outs, shortage of science and trained teachers, inadequate classroom supervision, the low enrolment of girls, an unsatisfactory examination system, the implementation of science and work experience education, the gap between government and non-government schools, are the main problems and issues of secondary education.

Secondary Education

Trends: During the period 1980-1985 the number of secondary school (including junior high school) increased from 8,644 to 9085. In this period the enrolment at the secondary level increased from 20.00 lakh to 24.84 lakh, the enrolment of the girls in the same period increased from 4.24 lakh to 8.66 lakh. The percentage of trained teachers increased from 28.8% in 1980 to 36% in 1985.

In 1985 a two-year course for Bachelor of Education (B.Ed.) has been started through distance education for the untrained secondary school teachers in service.

The Secondary School Science Project has been started to give training to the non-government school teachers with a view to making science compulsory at the secondary stage.

China

Secondary school education has been forging ahead rapidly since the founding of the People's Republic of China. The enrolment in the secondary schools in the year 1949/50 was only a little over one million. But in the last 30 years, it has increased so rapidly that it stands at over 47 million for the year 1985/86. With the implementation of educational reforms, the quality of education too has improved, though much remains to be done in the field of elementary education, where still low admission rates are being recorded.

Meanwhile there is a great difference in the quality of teaching between the key schools in cities and those in remote, mountainous and border areas.

School System: Presently junior secondary schools adopt a 3-year system. Most of the senior secondary schools too employ the 3-year system. The structure of Chinese secondary school education consists of three parts: (1) general secondary schools; (2) specialized secondary schools; (3) vocational schools and agricultural schools.

The purpose of general secondary school education is to enable the youth to receive a good comprehensive elementary education, and to develop their moral, intellectual, physical and aesthetical abilities, so as to lay a foundation to be trained as a disciplined lot with ideals and respect morality, preserve culture and contribute to raise the quality of the Chinese nation as a whole.

To strengthen physical capabilities and improve basic abilities of the students, thirteen courses are offered in secondary schools: ideological and political education, Chinese language, mathematics, foreign language (English, Japanese or Russian), history, geography, physics, chemistry, biology, physical education, music, art and labour skills. Lectures on population

education are given in the first term of Senior III and some selective courses are added in the 2nd and 3rd years of the key senior secondary schools.

Problems: During the 10-year period of internal turmoil (1966-1976), most of the specialized secondary schools were compelled to close down. Yet an over-expansion of general secondary schools brought about an irrational structure in education, resulting in a serious discrepancy between economic construction and education. With the development of the specialized secondary schools, agricultural and vocational schools, presently the conditions have improved. For example, the enrolment of students which was less than 2% in 1969 for vocational education, has reached 36% in 1985.

At present, about one-fourth of secondary school graduates enter higher schools, while the majority of others take up to occupation. But in quite a lot of schools and districts, there has been a tendency to concentrate the attention only on those students entering college. The number of graduates entering colleges has been considered the criterion for evaluating the work of a school and that of the teachers as well. This has imperceptibly set the preparations for entering colleges as an educational objective. This tendency has already created bad results; for instance, the neglect of moral and ideological education, the cancellation of aesthetic education, the prevention of normal teaching work in schools, and the "lopsided" development of students. The State Education Commission pointed out this problem three years ago and will take meaningful steps to deal with it, this year.

China is a country with a vast territory. The development of her economy and culture is very irregular. The same kind of teaching plan, teaching programme and teaching materials may be taught quite easily in the developed areas, especially in the key schools, but may be deemed too difficult in the backward areas. So the state, while stressing that most of the schools and students must reach the standards she has set, places special emphasis on flexibility. Each area is allowed to make measures to suit its local conditions and the teaching contents may have elasticity. Each school can teach its students in accordance with their aptitude and allow everyone to develop his or her own talent. There is a need to curb the excessive teaching demands, and the problem of over-burdening students with homework should be solved. Then the teaching plan, the syllabuses, and the teaching materials would be designed to fit the majority of the schools and practically every student.

There are altogether 2,097,000 junior secondary school teachers and 76.6% of them are not college graduates. The total number of senior secondary school teachers is 460,000, among which 61% haven't studied regular college courses.

Owing to the importance of secondary education, the Chinese

Secondary Education

government pays great attention to the development of secondary education, including in-service teacher training, and the development of vocational education.

India

In May 1986, the Indian Parliament approved the 'National Policy on Education - 1986'. The new policy, while reaffirming many aspects of the earlier policy which was issued in 1968, has highlighted various problems that have remained unsolved and the new concerns that have emerged in life and in education in recent years. The National Council of Educational Research and Training (NCERT) has also recently brought out a new framework of national curriculum for primary and secondary education. A number of changes in the entire educational system, including secondary education, are now in the process of being initiated.

The framers of the education policy in India have visualized education as the most important prime mover of economic change and social development. The 1986 policy emphasizes the multi-faceted role of education in intensifying the nation-wide effort in Human Resource Development. It refers to the role of education in refining 'sensitivities and perceptions that contribute to national cohesion, a scientific temper and independence of mind and spirit - thus furthering the goals of socialism, secularism and democracy enshrined in our constitution', in developing manpower for different levels of the economy and for being the ultimate guarantee of national self-reliance.

One of the major developments in recent years has been the acceptance of a common structure throughout the country. In this structure, known as the 10+2+3 structure, secondary education is divided into two stages. The lower secondary stage is generally of two years' duration. It comprises of classes IX and X corresponding to the age group 14+ to 16+. In some states where the duration of primary education is seven years instead of eight, this stage is of three years' duration. The 1986 policy envisages the adoption of a uniform pattern of eight years of primary education to further the development of a common structure throughout the country. The higher secondary stage is also of two years' duration and comprises classes XI and XII corresponding to the age group 16+ to 18+. (The +3 stage of the 10+2+3 structure is the first stage of tertiary education.)

In India, primary education corresponding to the age-group 6+ to 14+ is visualized to be compulsory. Since the adoption of the 10+2+3 structure, education up to the lower secondary stage, comprises general education without any streaming or diversification of courses.

The higher secondary stage is characterized by diversification with two clear-cut streams - academic and vocational. The diversification of the academic stream enables the student to

have a choice of subjects according to his/her aptitude and interest and the requirements of tertiary education. The vocational stream aims at increasing the student's employability and competence for self-employment. The 1986 policy envisages that 10 percent of higher secondary students by 1990 and 25 percent by 1995 would be enrolled in the vocational stream.

According to the latest data available (1983-84), there are 59,266 secondary education institutions in the country. The total enrolment in these institutions is about 14.8 million of whom 9.7 million are in lower secondary classes and 5.1 million in higher secondary classes.

The framework for curriculum for all stages of school education as well as syllabi and instructional materials at the national level are developed by the NCERT. Many States/Union Territories develop their own syllabi keeping in view the national curriculum framework.

Since the adoption of the 10+2+3 structure, there has been an increasing emphasis on the acceptance throughout the country of a core curriculum with a common scheme of studies. Science and Mathematics have been made compulsory up to the lower secondary stage. The scheme of studies at the lower secondary stage includes three Languages, Mathematics, Science, Social Sciences, Arts, Work Experience and Health and Physical Education. The new curriculum framework recommends the introduction of a new course titled 'Contemporary India'.

For the higher secondary stage, the national curriculum framework recommended a core component comprising language(s) and general studies for both the academic and the vocational streams, elective subjects for the academic stream, and foundation courses and vocational subjects for the vocational stream.

The curriculum aims at ending the dichotomy between education and work, facilitating the acquisition of modern knowledge, developing curiosity and scientific method of enquiry, and preparing students for competent participation in a changing society and culture. It also aims at promoting national integration and international understanding. The new policy and curriculum framework also lay emphasis on certain core elements which would cut across subject areas and would be designed to promote an understanding of India's common cultural heritage and national goals and values such as equality of the sexes, protection of the environment, removal of social barriers, observance of the small family norm and inculcation of the scientific temper. The role of value education, integrated with various subjects, in combating obscurantism, religious fanaticism, violence, superstition and fatalism is also stressed. The new policy and the curriculum framework also highlight the importance of the non-scholastic areas of curriculum such as the development of aesthetic sensibilities and creative expression, work experience and physical education.

Secondary Education

There have been significant improvements in secondary education over the years in terms of quantitative expansion, the quality of curriculum and instructional materials, the training of teachers and methods of teaching and evaluation. In many respects, however, there are serious shortcomings. The rate of expansion of secondary education has been much slower than that of primary education. The new policy has drawn attention to the failure to achieve the goal of equalization of educational opportunities. The enrolment of girls and students from the socially and economically disadvantaged sections of society in secondary education is very poor. There are also regional imbalances in enrolment. In recognizing this failure, the new policy states, "To promote equality, it will be necessary to provide equal opportunity to all not only in access, but also in the conditions of success." There are also serious disparities in the quality of education and there are a large number of sub-standard schools lacking in basic facilities, physical and academic. The new policy refers to the 'problems of access, quality, quantity, utility and financial outlay' which have accumulated over the years and need to be tackled with utmost urgency. There are also various other problems relating to R and D inputs in curriculum development, the dominating role which the external public examination plays in the entire educational system, the teaching/learning process, the quality of instructional materials, the pre-service and in-service training of teachers, and the utilization of educational technology. A lot of attention has been paid to these problems in the new policy and in other documents, and in country-wide discussions. Programmes of action are now being articulated to initiate the process of tackling these problems.

Japan

The school system in Japan is a 6-3-3 system and the nine-year schooling at elementary and lower secondary schools is compulsory and free, and enrolment ratio at elementary and lower secondary schools is almost 100%.

Secondary education consists of two stages: lower secondary and upper secondary. Lower secondary graduates may proceed to the upper secondary schools for full-time (3 years), part-time or correspondence courses (4 years), or vocational training institutions or go directly to employment. Majority of the upper secondary students are in full-time course (97.2% in 1984). The upper secondary school courses are classified into the general course and the vocational/specialized courses (industrial, business, agricultural, fishing, home economics, fine arts, science-mathematics, etc.). Approximately 70% of the total number of upper secondary students are enrolled in the general course.

The national curriculum is prescribed by the Ministry of Education, Science and Culture in both the Regulations for the Enforcement of the School Education Law and the Course of Study

for each of the three school levels. Individual schools are encouraged to organize its own curriculum while devising unique educational activities of its own, within the framework of the provisions of the Regulations and the Course of Study.

Present secondary school curricula are known with the catchphrase of "not crowded but substantial". Some of the salient features of the revised Courses of Study are, for lower secondary schools to give greater emphasis on moral and physical education in order to ensure balanced development of students in intellectual, moral and physical qualities and, for upper secondary schools to make school life more free, yet substantial enough by reducing the total number of credits necessary for graduation.

The Central Council for Education, advisory body to the Minister of Education, Science and Culture, with its Sub-Committee on the Content of Education submitted a report in 1983 in reply to his request for recommendations on "the provision of basic guidelines of the content of the elementary and secondary education consistent with the changing times." The report focusses, among others, on the following points which are of crucial importance for consideration of the educational content in the years to come. They are (1) Fostering of "Self-Education Capacity"; (2) Teaching of Basics and Fundamentals; (3) Promotion of Individuality and Creativity; (4) Respect for Culture and Traditions; (5) Educational Content in Secondary Education; (6) Articulation between Lower and Upper Secondary Schools; (7) Teaching Methods; and (8) Teaching and Guidance on Life and Work.

The government established in August 1984 the National Council on Educational Reform as an advisory body to the Prime Minister. Objectives of the Council are to conduct necessary investigations and deliberations and to prepare recommendations for reform in the current educational policies and practices. The Council has so far presented two reports, the first report in June 1985 and the second one in April 1986.

The basic concepts for reform that the first report suggested are as follows: (1) Principle of putting emphasis on individuality; (2) Putting emphasis on fundamentals; (3) Cultivation of creativity, thinking ability and power of expression; (4) Expansion of opportunities for choice; (5) Humanization of the educational environment; (6) Transition to a lifelong learning system; (7) Coping with internationalization; and (8) Coping with the information age. Concerning the secondary education, the report recommends more flexibility of university entrance examinations, improvement of the quality of teachers, and the establishment of new types of secondary schools.

In the second report, the basic strategy of a lifelong learning system is presented and major reform proposals on this line are: (1) Transition to a lifelong learning system; (2) Recovery of the educational power by the family; (3) Reform of elementary and secondary education; (4) Reform of higher educa-

Secondary Education

tion and promotion of scientific research; (5) Promotion of non-formal education; (6) Reforms towards changes to a more international society; and (7) Reforms towards information age. Among the reform proposals, reform of elementary and secondary education deals with two major issues, one for enrichment of moral education and the other for improvement of educational content.

The government gave assurance that it would carry out educational reform with utmost effect while paying highest regard to the recommendations of the Council's reports and that it would proceed with planning and implementation of reform measures.

Malaysia

In 1983 a new primary curriculum was introduced into the first year of all primary schools. A new secondary curriculum is now being developed as an extension to the primary curriculum.

Such a review of the curriculum was necessary in order to meet certain national concerns. These concerns included; modernization, values, nationalism, a common culture, skilled manpower and national unity. There was also concern regarding the relevance of and the excessive specialization seen in the present curriculum.

A 6-3-2-2 structure is to continue with vocational and academic streams at the upper secondary level. Provision is being made for a wider range of educational and training opportunities at the post secondary level.

In determining overall educational goals, due recognition is being given to the need to balance individual potentials with societal and national aspirations. Individual development concerns the balanced development of potentials for good citizenship practices.

Societal orientation is in relation to the ability to communicate effectively, political maturity, national unity, socio-cultural sensitivity, understanding of economic principles and commercial practices, the modernization process and international understanding.

Both the lower and upper secondary levels emphasize citizenship education. To achieve this a compulsory core area, of subjects and study areas, is being identified. These are: the national language, English as a second language, computation, spiritual and moral values, citizenship qualities, the physical and natural environment, practical living skills, health and fitness and aesthetics. Electives are to be provided at the upper secondary level to enable some specialization. Electives at the lower secondary level are to be confined to two local languages: Chinese and Tamil. Co-curricular activities are seen as closely linked to the formal curriculum.

For the success of the new secondary curriculum, innovations in a number of areas would be needed in such aspects as the design and purpose of instructional materials, and varying classroom strategies to deal with specific situations. Group work and peer group influences are to be fully utilized. Materials and strategies for individualized learning are called for. The decentralization of teacher orientation and retraining is being pursued. Schools are to develop long-term strategies for the professional upliftment of teachers. The new programme would need effective continuous modes of assessment in schools. Ways have to be found to reduce the burden of public examinations.

Finally assistance and guidance are to be given to teachers in order to ensure the successful implementation of this new programme.

Nepal

The general aim of secondary education is to accelerate the development of the educational system in quantity and quality to meet the social and economic needs of the country. It also aims to inculcate knowledge, thoughts, vocational skills, morality, conscience, health and culture.

The educational structure consists of 3 years of secondary education. Schools which are run under the technical education scheme provide 3 years' of instruction plus 1 year of on-the-job training.

Secondary education is divided into three categories, which are:

- (1) General secondary schools, where the students are taught general subjects, so that they pursue their higher studies.
- (2) Vocational/Technical schools, where the students are taught vocational subjects. To some extent this stream of education is terminal.
- (3) Sanskrit secondary schools, where the main emphasis is on the learning of Sanskrit.

Recently, the Curriculum, Textbook and Supervision Development Centre (CTSDC) has adopted a process to ensure a continuous development and renewal of secondary level curriculum. Specialists and experts of the respective subjects, technicians from appropriate industries, teachers and headmasters, are invited to participate in curriculum development activities.

In the general stream, Nepali, English, Mathematics, History and Geography, Health, Panchayat, Science, optional and extra optional are studied. In the vocational stream, Home science, Of-

Secondary Education

merce management, Accounts, Agriculture, Industrial education and optional subjects are studied. In the Sanskrit stream, Nepali, Sanskrit, Social studies, Science, Health and optional subjects are offered to the students.

Some of the problems of secondary education are:

- (1) Suitable manpower and physical facilities: Most of the schools neither have qualified and trained teachers, nor sufficient classrooms, laboratories, furniture and teaching materials.
- (2) Rising demand vs. limited resources: Social demand for secondary education is rising rapidly, while financial resources remain limited or are even reduced.
- (3) Productivity and efficiency of education: Though financial resources are limited, educational wastage in various forms exists at secondary levels. Large number of students are either dropouts or repeaters.
- (4) Educational quality: Schools in rural and urban areas are much different in respect of equipment and teaching/learning materials. Inadequacy in these facilities leads to inequality and inefficiency in secondary education.
- (5) Education opportunity: In spite of the attempts to provide more educational opportunities for people, through the expansion of secondary education, inequality of educational opportunities still exists among the regional and socio-economic group of the people.
- (6) Curriculum implementation: To make teaching/learning activities responsive to the secondary levels, there is a need for the improvement of teaching/learning materials, as well as teaching methods. Production of textbooks, teachers' manuals, and educational materials need speedy delivery.

The recent concerns expressed by different quarters of Nepalese society about the quality of secondary education, could be taken both as a reflection of enriched consciousness about the value of education, as well as of heightened expectation from the education system. The concerns have to be harnessed into a constructive and productive atmosphere for the education system by striking a balance between the responsiveness of the system, and broader public participation, as well as general support for the system.

New Zealand

The present structure of New Zealand secondary education is derivative; its origins lie elsewhere. Although local influences have been at work for over a hundred years now, the influence of Western European models, and particularly those of England and Scotland, remains strong. This is not surprising since the majority of secondary school students can trace their ancestry to Western Europe, more specifically to the British Isles. The structure was designed to meet their educational needs.

In very general terms, since European settlement this system of secondary schooling has served the country well. For many years there was a widely held view that the New Zealand education system contributed significantly to the substantial degree of equity to be found in the community. This assumption rested on two bases. First, secondary schools were designed to cater for the needs of a homogeneous student body - students of Anglo-Saxon stock. Secondly, there was gainful employment available for many of those who did not prosper at secondary school.

More recently the situation has changed dramatically. The secondary school population is no longer homogeneous; it never was but, in terms of school organization, curriculum, and teaching methodology, Maori students were largely invisible. Since about 1960, however, the Maori population has grown, and the Maori people have become increasingly aware of the need for their young to have success in the system. Additionally, the most recent wave of migration to New Zealand has come from the Pacific Islands, so New Zealand educators have become increasingly aware of the need to respond to the growing ethnic complexity of the nation. And, since the late nineteen seventies, there have been more young people looking for jobs than there have been suitable jobs available. For these two reasons, then, the general satisfaction with secondary education in New Zealand referred to earlier no longer prevails.

The point has already been made that New Zealanders see education as a practical mechanism to achieve equity within their community, and this remains the first objective of the system. To New Zealanders this means a system which is fair to all young people regardless of race, religion, gender, or economic circumstances. It also means that the quality of education offered will be broadly comparable in all parts of the country.

Secondary education in New Zealand, therefore, is free, compulsory, and secular. These requirements are met within a national system which is centrally funded; legal authority for its operation is derived from Acts of Parliament.

There are five clearly distinguishable kinds of New Zealand secondary schools: Forms 1-7 Schools, Forms 3-7 Schools, Area Schools, Departmental and Board Special Schools, and Private Schools. The divisions among state schools largely reflect or-

Secondary Education

ganizational responses to the differing requirements of rural and urban secondary schooling. Most secondary school students, however, are enrolled at Form 3-5 state secondary schools. All state secondary schools are controlled by statutory Boards of Governors in which parents or their representatives form about half the membership. Each Board appoints its own staff, and all the significant activities in the school are carried out under the authority of the Principal with the general concurrence of the Board.

The present secondary school curriculum was designed about forty years ago and is currently being revised. In theory, the secondary syllabus is based on a common core subjects comprising English, social studies, general science, mathematics, music, art and crafts, and physical education. The principal cause of concern with the curriculum, however, lies not with its content, so much as with the way it is examined at the conclusion of the Fifth Form (Year 11). A system of adjusting raw marks to ensure fairness to all candidates has been in operation for many years; in recent years dissatisfaction with its outcomes has increased markedly.

Free, compulsory, secular education through until the end of secondary school has not produced the Antipodean Utopia our pioneers envisaged. Perhaps the needs of as many as 30% of our young people are not adequately met in it. None of our problems is, on the other hand, peculiar to the New Zealand system. Our colleagues in Australia, for example, report having very similar difficulties. More significantly, since we used their models, so do the Scots and the English. Nevertheless, there is cause abroad for optimism. First, the present system does cater well for the majority of coping secondary school students. Secondly, there is an increasing awareness among the community at large that the system has to be modified to meet better the needs of those students presently disadvantaged in it.

Pakistan

Pakistan emerged as an independent State on the globe on 14 August 1947. It has four provinces and the federal territory as administrative units and the population exceeds 80 millions. Education is basically the provincial responsibility, but the Federal Government is the over-all policy making, coordinating and advisory authority. School structure upto secondary level has three tiers as indicated below:

- (1) Primary (Classes I to V): Age group 5+ to 10+
- (2) Middle (Classes VI to VIII): Age group 10+ to 13+
- (3) Secondary (Classes IX to X): Age group 13+ to 15+

Since the inception of the country, a number of delibera-

tions were made at the national level and on the basis of these deliberations different educational policies, and programmes were evolved so as to shape education in accordance with the national needs and aspirations. Latest Education Policy came up in 1979. On the basis of this an Action Plan for Educational Development has been prepared by the Ministry of Education. Salient features of the Plan with regard to secondary education appear as under:

- (1) Provision for additional enrolment of about one million children in secondary schools, i.e. increase of 40% at the base level.
- (2) To equip a number of secondary schools for providing vocational training in one selected discipline corresponding to the needs.
- (3) Strengthening of agro-technical schools for enhancement of enrolment and making education more productive.
- (4) Opening of more technical schools as an innovative programme.
- (5) Improvement of physical facilities like science laboratories, libraries, and availability of equipment, etc.

One of the steps the Government has taken to generate more funds to meet the extra expenditure involved, is to levy an "Iqra Tax" in the imports. This would provide reasonable resources to launch the programmes as per Action Plan.

Major problems and issues that Pakistan faces in the field of secondary education are as follows:

- (1) There is an acute shortage of secondary schools in the rural areas. Establishment of more schools needs top priority consideration.
- (2) General education has not much attraction for the majority of students who like to start practical life much earlier. This is more so in the case of students living in rural areas. Vocationalization of education is necessary to make education more meaningful and productive.
- (3) In-service training facilities for teachers are inadequate. Rapid scientific and technological advancement has its bearing in the curricula and therefore teachers must be well abreast with the latest developments in the fields of knowledge, skills and technologies, etc.
- (4) Non-availability of qualified teachers particularly in mathematics and science subjects.

Secondary Education

- (5) Shortage of good textbooks and supplementary reading materials.

Papua New Guinea

The main objective of secondary education in Papua New Guinea is to provide a curriculum oriented for the application of academic and practical skills and for the promotion of positive social status.

The secondary education is for six years: four years at the lower secondary level and two years at the upper level. Provinces administer their schools, which cater for the first four years of secondary education, and they have full autonomy over them on teacher appointment, student enrolment, physical facilities and policies governing these institutions. School curriculum, teachers certification, and registration are the responsibility of the National Department of Education. The upper secondary schools, which consist of grades 11 and 12, are solely run by the National Department of Education.

An average of 33% of students who sit for grade 6 examination are able to enter high school. The merit system and the quota system are being used to cater for the quality students to enter higher education and to provide equal opportunities to others to enter high schools in their provinces. Also, 33% of the students who enter grade 7 will leave at the end of grade 8 unless Provinces are able to provide places for all to continue to grades 9 and 10.

Those students who complete grade 10 are able to go for further studies, training or into employment. Others return home. Plans have been made to provide relevant kinds of education that will equip leavers in the lower secondary to fit into their society; for many, it is to their rural villages. The Secondary Curriculum Extension Project (formerly known as Secondary Schools Community Extension Project) was introduced in 1979, initially on a trial basis. The same subjects offered in grades 7 - 10 are taught, but integration of subjects is greatly emphasized through the core projects such as subsistence gardening, trade store, fishing boat building, net making, furniture making and canoe making. At present there are ten Provincial High Schools fully involved in this innovative project, while others are encouraged to make use of this approach. The core projects vary from school to school, depending on their location and needs. The surveys carried out on this innovation have shown that it is proving successful.

The country recognizes the problem of lower secondary school graduates not having opportunities for training, further studies, and employment, and has made attempts to solve it through providing relevant kinds of education, as mentioned above. Distant education services through College of External Studies and its

Provincial Centres and the various programmes for youths at various levels are the strategies that are being used.

For the upper secondary school leavers opportunities have been great for further education, training and employment. The need now is to provide more and better facilities for more students to have higher secondary education. In grade 11, all students study English, Mathematics, Science, Social Science and Expressive Arts, while in grade 12 the students select subjects based on the need of their career path.

The number of Papua New Guinean teachers has increased drastically since independence in 1975 at the lower secondary level, while it has grown very slowly at the upper secondary level. In 1986, 82% of the teachers in the lower secondary schools is Papua New Guineans while Papua New Guinean teachers make up only 12% in the four National High Schools. The country now relies heavily on expatriate teachers, particularly at the upper secondary level, as it has not been able to retain national teachers. The academic qualification of Papua New Guinean teachers has been upgraded through the various levels of in-service training held throughout the year, and also places are made available for university studies both in the country and abroad.

As in many countries, there is a need to improve physical facilities in Provincial High Schools. For the period 1985-88, through the Education III World Bank Loan Project provinces will be assisted to improve facilities in schools. This project is contributed in a positive manner to improve standards of curriculum implementation both in the lower and upper secondary schools.

For some time, development of materials has concentrated on syllabuses and teachers' guides. Only in the last two years, has major attention been given to pupil materials. The World Bank Education III Project has assisted in the development of textbooks and relevant curriculum materials.

It is through the Education III Project that assistance will be provided to improve localization of teaching positions, textbooks and equipment, subject knowledge and in-service training opportunities for teachers, maintenance of school buildings and expansion of school facilities.

Philippines

Secondary education in the Philippines covers a period of four years. It is for those who complete the six-year elementary school programmes. For these students, secondary education functions as a combination of the general education started in the elementary schools, a preparation for a vocation and a preparation for college. Its mission is to provide every Filipino boy and girl who goes through secondary education with the knowledge,

Secondary Education

skills and values that will help him or her fulfill himself or herself as an individual as well as to participate meaningfully and productively in the affairs of society.

The present secondary education programme being implemented sought to achieve these goals as well as the development of specific vocational skills for the students. Tests, however, showed a generally low performance level in the achievement of the goals of the programme. Studies, observations, and dialogues with the field which culminated in a formal survey in 1979, revealed problems of implementation, the most common of which are the perennial inadequacy of materials, and the lack of congruence between the educational preparation of teachers and their teaching assignments. On the curriculum itself, there were problems of lack of understanding among teachers of the philosophy and approaches of the curriculum.

It is agreed that the teacher and how he or she handles the curriculum is the most significant determinant for success of the implementation of an educational programme. The analysis of the existing secondary curriculum in relation to the problems, however, brought attention to the need to start reform with the curriculum. The curriculum specifies the content of education and it shapes the training of the teacher and the materials that he or she would need to handle it. In fact, even the intellectual quality of the teacher cannot be sustained without a deep understanding of what the student should be learning. On this assumption and in response to the need for relevance to the new demands of the changing society and of the high school learner of the next decades, a proposal for a new secondary curriculum is being made. This proposal is aimed at making the programme both effective and efficient in meeting the needs of the learner in the society of the future.

The data on the curriculum determinants were gathered in four pre-formulation forums, research studies and consultations with subjects area specialists. On these were built the philosophical base of the proposed 1989 curriculum that secondary education is a general education programme that must provide for the strengthening of the students' values system as the foundation for their advancement in cognitive and skills development. This orientation is transplanted into the content and strategies of the nine subjects proposed for the new curriculum. These are English, Science, Mathematics, Home Management and Technology which will use English as the medium of instruction and Pilipino, Social Studies, Physical Education, Health and Music (PEHM) and Values Education which will use Pilipino as the medium of instruction. Work Experience will use English or Pilipino depending on the place of work. The tryout will be on a 40-minute period daily for each subject area to find out how much less or more time would be really needed to achieve the objective for each subject area.

The development of the objectives, content and strategies of

the 1989 curriculum was the main activity in the development plan in 1984. On the basis of the objectives set in the framework, learning competences for the nine subject components were identified and a curriculum guide for each was developed. Instructional materials were prepared and teacher training was undertaken for the first and second phase of the tryout in 86 pilot schools. All these will be part of the research activities of the Bureau of Secondary Education. The ultimate goal is to find the proper direction in the resolution of issues on secondary education so that schools can have graduates who are able to live productively and happily as well as to use their knowledge and wisdom in a shared effort to better rather than destroy society.

Republic of Korea

The secondary school system in Korea consists of three-year middle schools and three-year high schools. High schools are divided into general high schools, vocational high schools, and specialized high schools. Entrance to middle school has become compulsory. All applicants are accepted and allocated to schools in the district of residence. Over 98% of all elementary school graduates move on to middle schools. Beginning with rural and remote areas in 1985, compulsory and free middle school education is being introduced, intending to accomplish its full realization by 1991. About 88% of middle school graduates enter high schools. About 30% of middle schools and 55% of high schools are private schools.

Except for vocational courses which are selective at the last year of the school, a common school curriculum exists for middle schools. High school curricula are composed of: 1) common core, 2) required subjects in selective streams, and 3) selective subjects in selective streams. Subjects of general high schools are usually divided into streams: humanities, social sciences, natural sciences, and vocation-oriented streams. Vocational high schools have many streams.

Some major problems in Korean secondary education are as follows:

School Curriculum: The highly industrialized society expected to develop in the 1990's will call for different personality types from those who have customarily been playing major roles in our society. For instance, personality traits such as a strong sense of self-concept, creativity, and adaptability to changing situations will be in demand. For the development of a personality for such competencies as these, the objectives and curricular content of education in the future must be so defined and selected to cope with the changes of the future.

Teaching Methods: In most classrooms lecturing and the methods of indoctrination are practised on the pretext of overcrowded classrooms. There is a heavy reliance on a labour intensive in-

Secondary Education

structional methodology, involving exhortation of teachers and note-taking by students. Therefore, it is imperative that new teaching methods be developed, drawing on various media and new learning theories.

Dehumanization of Education: A great problem of concern is the de-humanizing effects of mass education in which the individuality of each student fails to get the proper attention, with the result that education deviates from its essential goal of developing individual personality; and the increasingly serious impact of formalism in education, due to the tendency to emphasize form rather than substance. It is one of the major problem of Korean education to find a way to humanize education upon the basis of greater autonomy and creativity, as well as to reduce formalism as it affect both individual teachers and schools.

Teacher Training: To improve the quality and professionalism of teachers requires reforms not only in the teacher preparation system, but also in in-service training and personnel management systems. Opportunities for in-service training should be enlarged, while its methods are varied. The policy pertinent to personnel management should be reformed in the direction of enhancing the professionalism of teaching and to provide for incentives.

Quantitative Expansion: Increase in student enrolment will necessarily demand a parallel expansion of facilities, teaching personnel, and financial resources. Improving the quality of education will require rather drastic expansion of educational resources. Furthermore, in parallel with the expansion of educational opportunities, individual differences among students in terms of achievement, motivation, socio-economic background, etc., may be met. Problems stemming from failure to respond to the challenges posed by these individual differences have become apparent.

It is obvious that the continuous expansion in quantity will result in a lowering of the quality of education unless this growth is accomplished by a drastic improvement in teaching-learning conditions and positive measures to respond to individual differences.

Singapore

The overall objective of education is to establish a flexible system which will bring out the best in every child and develop in each pupil sound moral value and a strong foundation in the basic skills necessary to earn a living in our modern economy. Special emphasis is placed on literacy and numeracy, bilingualism, lower educational wastage, training of skills, moral education and physical development.

The New Education System Secondary (NESS), introduced in 1980, caters for the differences in the academic ability of the pupils. Based on their performance at the Primary School Leaving Examination (PSLE), pupils are streamed into either the Special, the Express or the Normal Course. The Special Course is for the abler pupils (top 10%). The Express Course is for the above average and the Normal Course is for the average and less able pupils. For all the 3 courses, English Language (EL) is the medium of instruction and pupils offer this subject at first language level. All pupils are also required to study their mother tongue, Chinese (CL), Malay (ML) or Tamil (TL). Only the Special Course pupils are allowed to offer both languages at first language level, while those in the other 2 courses study their mother tongue as a second language. All 3 courses lead to public examinations. The pupils in the Special and Express Courses sit the Singapore Cambridge General Certificate of Education Examination "O" level (GCE "O") in 4 years while the General Certificate of Education "N" (GCE "N") is offered to pupils in the Normal Course after 4 years. The latter group of pupils, who do well in the GCE "N" proceed to their 5th year of secondary education to sit the GCE "O" level examination. Another feature of the NESS is that it allows for the lateral movement of pupils from one course to another so that they are not studying at a level or pace beyond their capabilities. Retention is generally not practised and Normal Course pupils who fail and are over age, are offered basic skills training at the Vocational and Industrial Institutes.

Generally, a broad based curriculum is offered to pupils in all the 3 courses. Emphasis is on the provision of a balanced curriculum to cater to the intellectual, physical, socio-cultural and emotional growth of the pupils. However the coverage of the syllabus in the academic programme is reduced for pupils in the Normal Course. In the lower secondary (first two years) all pupils are offered the same number of subjects. In the upper secondary, the Special and Express Course pupils are offered 6 to 9 examination subjects while pupils in the Normal Course are offered 5 to 7 examination subjects. For all levels and courses, the non-examination subjects, i.e. Moral Education or Religious Knowledge, Physical Education, Music and the School Assembly are compulsory.

The main problem is to improve the quality of education for our pupils. Specifically, we need to inject great professionalism in schools by improving the administrative and professional competence of our principals and vice-principals, by upgrading the knowledge and skills of our teachers, by improving school facilities, by further developing the special talents of our pupils and by strengthening school accountability procedures.

Steps are being taken to improve the quality of education. Teachers identified with principalship potentials are trained in the full-time Diploma in Educational Administration Course before they are appointed to head schools. Training on a part-time basis

Secondary Education

has also been introduced to incumbent principals. There are the annual Education Administration Courses, the short residential courses, national workshops and seminars to train them in supervisory and administrative skills. Numerous measures have been taken to upgrade the academic and professional competence of teachers. These include local and overseas basic degree and post degree scholarships, regular in-service courses on methodology and content and school based workshops and seminars. Despite the shortage of teachers, a high standard is maintained in the recruitment and training of teachers. There is also official recognition in various forms for effective officers.

School facilities and resources are continually upgraded. The feasibility of reintroducing the single session school system to provide more opportunities for teacher pupil interaction is being studied. Provisions are made for pupils with special talents in music, art and language in the music and art elective programmes and the third language programme.

With schools given greater flexibility, autonomy and authority, standards are being maintained through school accountability. For this purpose the appraisal system (self and external) was introduced. In the annual self appraisal exercise, teachers evaluate the school programme to make recommendations for improvement. The accountability aspect is taken care of by the external school appraisal carried out by a team from the Inspectorate once in 4 or 5 years.

Educationists in Singapore find these trends encouraging. The task ahead is challenging but worthwhile for it is in the young that we place our hopes and aspirations.

Sri Lanka

In Sri Lanka education is free from year 1 to year 13 and through the universities. All school textbooks are also given free to students from year 1 to year 11. There are 9600 schools in the national school system, which presently has the structure of 5-3-3-2. The first 5 years is the primary level, which is also the first phase of open access general education where all students follow a common curriculum. The next 6 years is the secondary level, which is the second and final phase of open access general education, where too students follow a common curriculum consisting of 9 subjects including science and mathematics. The senior secondary level consists of the last two years, which is the 3rd and final phase of school education and is open only to those who reach a minimum level of attainment at the GCE O/L examination which is held at the end of year 11. The GCE A/L examination, held at the end of year 13, has a dual purpose. While it is a terminal achievement test in respect to senior secondary education, it is also the selective instrument for admission of students to universities.

The main objectives of secondary education are:

- (1) To promote effectively the harmonious growth of the child; and
- (2) To prepare the child more purposively for life and work in society.

The government policy is to make the first six years of secondary education available and accessible to all children within the stipulated age group. But due to the prevailing economic climate in the country, the Ministry of Education has found it a difficult task to obtain sufficient budgetary provisions for the speedy development of the planned secondary education programme.

The weaknesses in the existing system are as follows:

- (1) Wasteful competition among separate institutions for the limited resources provided by the state;
- (2) The excessive emphasis on examinations which tends to narrow down the scope of learning content and co-curricular activities;
- (3) Low attention is paid to those important curricular aspects, which are less/not susceptible to being tested at national level written examinations.

All directions for the development of secondary education originate at the Ministry of Education as the education system is centrally controlled. With the changing classroom situation as a result of the impact of science and technology in education, a major concern is the preparation of teachers to meet the emerging challenges in the classroom.

The Ministry will undertake or commission some studies that will help to develop secondary education.

- (1) A study of possible strategies for mobilization of media and computers as an effective instrument to facilitate learning.
- (2) National study to identify approaches, strategies, techniques and processes for curriculum development with an orientation towards the future.

A new curriculum is being implemented in a phased manner at the primary and the secondary level. A significant feature of this new curriculum is that two more years of science have been added to the primary level at year 4 and year 5. This means a student leaving the school system at an end of the final phase of open access education will have had 8 years of science.

Thailand

Major developments of secondary education in Thailand in the last twenty years were mainly concerned with the rapidly increasing number of students, changing the National Education Scheme, and also the curriculum. According to the National Education Scheme of 1977, education is regarded as a life-long process which promotes the quality of life for all. The educational system was changed from 7-3-2-4 to 6-3-3-4 whereby a six years primary schooling in compulsory, followed by a maximum of three years each of lower and upper secondary levels, culminating in a minimum of four years of tertiary level. The global policy is that "the state shall endeavour to support and promote the organization of secondary education in order to ensure equal educational opportunity at this level and in response to national socio-economic needs with special provision for work experience." The curriculum introduced under this scheme was greatly affected by the diversified curriculum of the comprehensive school project being seen in 1967 - 1972.

Considering the objectives of the National Education Scheme of 1977, the objectives of secondary education are to: (1) help pupils acquire knowledge and skills according to their abilities, interest and aptitudes sufficient to earn a living or for necessary foundations either for vocational training or higher education; (2) develop desirable citizenship behaviour, aptitudes and abilities in order to live and work effectively with the others; (3) develop in the individual a well-integrated personality, good health and hygiene, both mental and physical; (4) inculcate a sense of responsibility towards one's nation, one's community, one's family and oneself; and (5) cultivate understanding and appreciation of science, arts, culture, nature, environment and national resources.

In order to accomplish these objectives, new curricula already mentioned were introduced in 1978 and 1981 for the lower and upper secondary levels respectively. The Lower Secondary Curriculum of 1978 which is aimed at giving a chance to all students at this level to have a clear understanding of their abilities, aptitudes and interests, consists of five subject groups: language, science-mathematics, social studies, personality development, and work-oriented. Each subject group is categorized into 2 parts, namely, mandatory subjects which serve as core subjects, and elective subjects in which the students can choose to explore their abilities and interests. At the upper level, the Upper Secondary Curriculum of 1981 will give the students a chance to concentrate more on a group of subjects that will eventually become their career. The curricular contents are also divided into mandatory and elective subjects. Mandatory subjects comprise the general courses: Thai language, social studies, physical education and science, and the foundation vocational courses; industrial arts, agriculture, home economics, business education, art and crafts, and fine arts. Elective subjects consist of the above mentioned subject groups, and another 2

subjects; mathematics and foreign language.

In 1984, the total enrolment in the formal school of secondary education was 8.53 million. 7.23 million or 35.11% of the 13-15 age group are in the lower level, and 0.95 million or 26.04% of the 16-18 age group are in the upper level (including vocational schools or colleges.) At the lower level, the ratio of government/private enrolment was about 86:14, while at the upper level it was 90:10 (excluding vocational schools or colleges.) The total enrolment of private secondary schools are expected to decline in the next five year plan.

Great effort is being made to generate more opportunities for all students wherever they are to attend the secondary school in the last 10 years, as well as to improve the qualities of education in these levels. Many projects, such as the Rural Secondary School (RSS), the Community Secondary School (CSS), and the Lower Secondary School (LSS), have been introduced, but still major problems have to be solved:

- (1) Wide disparities exist in different parts of the kingdom in terms of transition rates from primary to secondary level, because of the lack of schools in some remote area. Some subjects introduced into schools are not relevant to the local communities, and there are economic difficulties in different parts of the kingdom.
- (2) An average secondary school is ill-equipped for the vocational or the work-oriented content of the diversified curriculum. Because of the influence of the university entrance examination, schools lack equipment and workshop facilities, and there is a chronic shortage of properly qualified teachers in technical fields.
- (3) The quality of school performance depends very much on teaching staff, but an insufficient budget is allocated for staff development. It becomes difficult to change teachers' teaching behaviours.
- (4) Concerning the concept of decentralization, school clusters introduced in the provincial level have been actively improving the quality of schools. Much efforts should be put into these areas.

To overcome those problems, secondary schools need to be provided with tools and management sufficient to effectively implement the diversified curriculum to help schools fulfill their overall function. Various aspects of research must be carried on to find out the most appropriate ways to do this.

Secondary Education

Western Samoa

The Ministry of Education is the main governing body for all educational matters in Western Samoa. The formulation of the broad aims of secondary education was guided by considering the various factors and needs peculiar to Western Samoan society; for example, the economic situation of the country, the expectations of the community, the national goals as stated in the National Development Plan, the Constitution of the government, its culture, the changing attitudes that inevitably accompany the changing material world and the fact that only 20% of the secondary school population can be accommodated in the so-called 'white-collar' component of the country's work force. As a result, the following broad aims formed the basis of secondary education in Western Samoa:

- (1) To provide and expose the student to a wider variety of learning experiences in the school in order to help him/her progress to his/her full potential;
- (2) To equip the student with the necessary knowledge, skills and attitudes to enhance further the learning process and to enable him/her to lead a constructive and satisfying life;
- (3) To provide the student with the opportunity to understand and help others appreciate his/her environment and heritage;
- (4) To foster the physical, social and moral development of the student both as an individual and as a contributing member of his society.

The secondary school system is divided into Junior High Schools and Senior Secondary Schools. Junior High School has classes from Form 3 to Lower 5 (3 years) while Senior Secondary School has classes from Form 3 to F 6 (4 years). Admission into secondary schools is based on the results of the Form 2 National Examination at the end of primary education. The top 30% of the students are selected to enter senior secondary schools, and the rest are placed in junior high schools. Students from junior high schools who qualify to enter senior secondary schools at the fifth form level have to repeat their fifth form year. This is largely due to the different curriculum in existence in junior high schools and senior secondary schools.

All Samoan Form 5 students take the Form 5 National Examination at the end of their first year in Form 5, but only those at senior secondary schools are eligible to sit the New Zealand School Certificate Examination. Students who pass the School Certificate Examination are eligible to continue onto Form 6 at the end of which they sit the New Zealand University Examination.

School leavers from junior high schools intending to con-

tinue further studies can choose to enter any of the tertiary institutions available, such as the Teacher Training Colleges, Technical Institute, Nursing School and Agricultural School based on the results of their Form 5 National Examination. (Recently these same institutions have raised their minimum entry requirements to a pass in the School Certificate Examination.) School leavers from senior secondary schools with passes in University Entrance Examination continue onto university studies or attend the above mentioned tertiary institutions. The rest of the school leavers either join the world of work or return home.

The two external examinations, School Certificate and University Entrance dominate to a very large extent the curriculum of senior secondary schools. The junior high schools follow the local curriculum which is geared towards the Form 5 National Examination. The subjects offered at junior high schools are Samoan, English, Physical Education, Arts and Crafts, Social Science, Mathematics, Science, Business Studies, Home Economics and Industrial Arts. At the senior secondary school level, the additional subjects offered are Physics, Biology, Chemistry, Economic Studies, Accounting, Geography and History. The compulsory subjects are English, Mathematics and Samoan. The student may elect three other subjects.

Some of the problems faced by schools in general are:

- (1) The shortage of qualified teachers in all subject areas;
- (2) The lack of proper facilities for science, agriculture and industrial arts in some schools;
- (3) The shortage of textbooks for all subjects;
- (4) The need to upgrade all junior high schools and to provide a unified curriculum; and
- (5) The negative attitudes of parents and students towards vocational subjects.

Western Samoa intends to restructure its secondary school system by channeling all primary school leavers to Junior Secondary Schools (JSS) first before attending a Senior Secondary School (SSS), that is, 3 years at JSS (Forms 3, 4 and 5) and 2 years at SSS (Forms 6 and 7). In addition, Western Samoa plans to produce a Samoan School Certificate Examination to select students for SSS and an equivalent examination to the New Zealand University Entrance Examination to select students for university studies.

Section II

ANALYSIS OF MAJOR ISSUES IDENTIFIED

After the presentation of the individual country reports on the position of secondary education, the participants met in group sessions to identify problems and issues concerning secondary education in their respective countries. At the plenary session, which followed the group discussions, the chairperson of each group presented its findings, and in this way problems and issues which were common in most of the participating countries were identified.

As the task of this workshop was to propose a study, regarding secondary education, of reasonably manageable proportion, the problems and issues were carefully categorized under five important areas/topics. The items that need consideration under each area were also identified and agreed upon in a plenary session. This would serve as the framework for the proposed study.

I. Organization

(1) Goals and objectives

(2) Structure

- a) Age of entry
- b) Number of years of secondary education
- c) Stages - structure
- classification
- d) Types of schools

(3) Management

- a) Centralized/decentralized
- b) Style

(4) Resources

- a) Funding
- b) Physical resources - buildings
- materials
- c) Human resources - teaching
- non-teaching

Secondary Education

II. Enrolment

- (1) Participation rate
 - a) Male/female
 - b) Urban/rural
 - c) Others
- (2) Completion rate
- (3) Dropouts
- (4) Pupil-teacher ratio

III. Curriculum

- (1) Organization
- (2) Core and non-core
- (3) Academic and non-academic
- (4) Centralized and decentralized
- (5) Work-experience
- (6) Values education
- (7) Teaching-learning strategies

IV. Teacher Preparation

- (1) Pre-service
- (2) In-service
- (3) Re-training
- (4) Professional growth
- (5) Service conditions

V. Assessment

- (1) Pupils - performance/behaviour
- (2) Teacher performance evaluation
- (3) Assessment of administrators

The workshop then proceed to work out a research design, with the above framework as the basis, taking note of the time frame, within which the research study has to be completed.

Part B

Section I

RESEARCH DESIGN

1. Title of the Study

"A Study on Some Critical Aspects of Secondary Education in the Countries of Asia and the Pacific"

2. Significance of the Study

There is general acceptance of the view that education plays an important role in the development of countries. Within Asia and the Pacific considerable interest is currently being generated about the extent to which secondary education is meeting national needs. In particular, the rapid advances being made in the field of high technology support the need for a well educated workforce. This research study will provide a valuable and timely contribution to discussions on secondary education.

Preliminary workshop-type discussions have already indicated that many countries are experiencing similar problems. This research study will not only provide a systematic review of these problems, but will also begin to reveal some of the strategies that have been adopted to try to overcome these problems. Further, research on these strategies and other areas for intensive study may be identified as a follow-up project. What is significant in this regard is the real opportunity that is provided for participating countries to learn from one another, and in the particular area of secondary education to develop avenues for international cooperation.

During the period 1984-85 a research study on "Some Major Developments in Elementary School Curriculum in Asian and Pacific Countries" was completed by the joint collaborative efforts of 17 participating countries in the region under the initiative of the National Institute for Educational Research (Tokyo) in collaboration with the Unesco Regional Office for Education in Asia and the Pacific (Bangkok) within the framework of the Asia and the Pacific Programme of Educational Innovation for Development (APEID). This study of secondary education is a timely extension of an earlier study on elementary curriculum.

Secondary Education

3. Previous Research

Through the individual papers presented at the First Regional Workshop on the Study of Secondary Education in Asia and the Pacific, it became clear that studies have been completed in individual countries but without any comparative analysis.

At the regional level in Asia and the Pacific, information on secondary education has regularly been provided to the regional conferences of ministers of education, yet no attempt has been so far made to complete an analysis of this data. However, the Unesco Regional Office (Bangkok) has collated information on general secondary school curriculum in the Asian region in 1969.*1 Attempts have also been made to examine the state of art of specific fields of study at the secondary education level, such as science education, vocational and technical education. In responding to the needs of Member States to restructure and reorient secondary education, the Asian Centre of Educational Innovation for Development (ACEID) attached to the Unesco Regional Office (Bangkok) recently initiated two study projects - a "Task Force Meeting on Cooperative Development of New Models of Secondary Education"*2 (Indonesia, July 1984; attended by six countries) and a "Forum on New Trends and Processes of Secondary Education"*3 (Papua New Guinea, 1985; attended by eight countries). These studies have been valuable contributions to regional understanding of aspects of secondary education.

The study proposed in this research design is comprehensive and should provide a significantly higher level of understanding about a wide range of issues in secondary education in Asia and the Pacific.

4. Research Objectives

The objectives for the proposed research study are to:

- 1) Provide a source of research data on selected areas of secondary education to participating countries which will form a basis for improvements in the quality of secondary education;
- 2) Identify areas of common concern and major trends. In simple terms, this objective expresses an interest among the participating countries to learn from one another's experiences;

*1 Bulletin of the Unesco Regional Office for Education in Asia, Vol. III, No 2, March 1969

*2 Unesco Regional Office for Education in Asia and the Pacific, New Models of Secondary Education. Bangkok, 1984

*3 Unesco Regional Office for Education in Asia and the Pacific, Secondary Education for the Future. Bangkok, 1985

- 3) Identify and document strategies that have been successful in solving problem areas or issues in secondary education; and
- 4) Make recommendations for further research in the area of secondary education and to provide a stimulus to participating countries to continue their own research projects.

5. Scope of the Research

After detailed analysis of country papers prepared by participants, five areas were considered to be high priority areas for research. These areas are:

- (1) Organization;
- (2) Enrolment;
- (3) Curriculum;
- (4) Teacher preparation; and
- (5) Assessment.

Other areas that were considered for research included multi-cultural issues in secondary education, and the impact of value systems and socio-economic factors on student performance. However, after considering the practicalities of organizing an already comprehensive range of research issues and because the study needs to be completed within a reasonable time frame if it is to be of immediate value to participating countries, it was decided to delimit the research to the five areas identified above. It was also agreed to incorporate multi-cultural issues in the questionnaire items. In addition, one objective of the research that has already been noted involves recommendations for further research. This could provide a clearer view of the focus for a subsequent study.

6. Research Methodology

Identification of research areas and questionnaire items:
Descriptive papers prepared by participants of the First Workshop considered the following aspects:

- (1) General status of secondary education, including objectives, structures and curriculum; and
- (2) Major problems, issues and trends of secondary education.

After thorough analysis of the papers, 45 critical problems or issues were identified which were then grouped into the five major research areas.

Once this framework was established, draft questionnaire

Secondary Education

items were prepared for each area to collect relevant information on the issues. The total bank of items was then examined to ensure that terms or expressions used were acceptable to countries, and that as far as possible major issues relevant to each country had been taken into consideration.

Pre-testing: While advantages were identified in pre-testing questionnaire items in participating countries, it was considered that this was not feasible, particularly in view of the time schedule. To obtain comparable advantages of pre-testing the use of explanatory notes and alternative terms were suggested for questionnaire items, together with the close scrutiny provided by each participant.

Population and sample: While it is anticipated that all member countries will participate in the research study, the question of the extent to which sampling should be used to improve the reliability of data was left to the discretion of each country. To ensure that reliable and authoritative data are obtained, it is recommended that respondents should as far as possible be part of relevant agencies and have the authority to identify and release data.

Data collection and analysis: The research data are to be collected solely through the administration of the survey questionnaire. It is suggested that each country will form a research team with a principal researcher for this purpose. In considering the process to be observed in identifying a principal researcher and research team, it is felt that this is ultimately a decision for each country's responsible agency. However, because of the involvement and understandings obtained by participants in the first workshop, it was suggested that they could at least be a member of the research team. It is expected that this team would be responsible for collecting and analyzing the research data, and preparing the national report. Finally, it is recommended that a national workshop involving, if possible, representation from relevant agencies could be a most appropriate process for validating research data and compilation of the final national report. Comparative analysis of national data will be made at a second workshop to be organized by the National Institute for Educational Research (Tokyo) towards the end of 1987.

Time schedule: The following target dates are identified. Detailed arrangements within these dates are to be the responsibility of each country.

June-July 1986: Preparation of research design and questionnaire items.

August 1986: First workshop report which contains research design including questionnaire items released. Member countries requested to formalize their participation.

September 1986 National data collection and preparation of
- mid-1987: final national report to be forwarded to
 NIER.

Late 1987: Analysis of comparative data and preparation
 of final research report to be done at a
 regional workshop organized by NIER.

7. Format of National Report

It was suggested to use a uniform format for the preparation of national reports. The uniformity in national reports is to facilitate comparative analysis to be made at a second regional workshop which will be organized by NIER in 1987.

National reports should be composed of the following three parts:

Part I : Introduction

(Procedures taken for preparing a national report.)

Part II : Perspective

A: Background Information

Please provide the following information:

- 1) Location and size of your country.
- 2) Size of population, growth rate and the number of children and youth for each of the age group of 0 - 4; 5 - 9; 10 - 14; and 15 - 19 years using the latest available data.
- 3) Composition of the ethnic and religious groups in your country, in percentage to the total population.
- 4) National and official language(s) and medium of instruction for each stage/level of education.
- 5) School and fiscal year; the beginning month and the ending month.
- 6) Number of school days required for primary/elementary and secondary schools.

B: Overall status/situation

This part shall cover the areas which are dealt with in the questionnaire (please refer to the questionnaire which appears on pages 41 to 72) and be briefly written in a descriptive form under the following common headings.

- 1) Organization
- 2) Enrolment
- 3) Curriculum
- 4) Teacher Preparation
- 5) Assessment

Part III : Responses to Questionnaire Items

This part shall be an item to item response to the questionnaire items which appear on pages 41 to 72.

Section II

QUESTIONNAIRE

* * * * *

EXPLANATORY NOTE

This explanatory note is provided as a guide only. National research teams should feel free to add or amend as considered appropriate.

- (1) This project has five areas for research:

- a) Organization;
- b) Enrolment;
- c) Curriculum;
- d) Teacher preparation; and
- e) Assessment.

A summary of the purpose of the five sections of the questionnaire and their components is provided at the beginning of each section.

- (2) Many of the items request identification of alternative responses. Please circle (yes/no) or tick (V) the response(s) as appropriate. In answering the items, please use the latest available data and indicate the year to which the data apply.
- (3) If there are any items which do not apply, simply indicate 'N/A' (not applicable).
- (4) Differences exist between some countries in the way secondary education is divided into distinct stages/levels. Many of the questionnaire items, therefore, ask you to identify stages/levels that are appropriate for your country. If secondary education is not divided into stages/levels, then entry of data will refer only to the one stage/level. Where there is a 'pre-tertiary level' which is clearly a part of secondary education, this should be indicated accordingly.
- (5) This questionnaire does not provide enough space for answer. It is suggested that individual research teams may translate, if necessary, a part of the questionnaire into their own languages for collection of national data. It is also suggested to follow a format which is given on pages 39 to 40 in preparing their national reports.

* * * * *

1. Organization

The purpose of this section of the questionnaire is to obtain information on the general framework within which the secondary education system operates in the participating countries. Attention has been focussed on four inter-related areas the knowledge of which is critical to an understanding of the status of secondary education and the educational problems of the participating countries. The areas selected are:

- (1) Goals and objectives
- (2) Structure
- (3) Management
- (4) Resources
- (5) Others

1. Goals and Objectives

- 1.1 In your country are there explicit national and/or provincial/state goals that have a bearing on education?

National: ☐ Yes ☐ No
Provincial/State: ☐ Yes ☐ No

- 1.1.1 If yes, please state briefly the main features of:

- a) National goals: _____
- b) Provincial/State goals: _____

- 1.1.2 Please state briefly why these features are considered important to education.

- 1.2 Are there official statements of national and/or provincial/state goals of education?

National: ☐ Yes ☐ No
Provincial/State: ☐ Yes ☐ No

- 1.2.1 If yes, please provide a brief statement of these goals.

- 1.2.2 Please state briefly how these goals are formulated and which authority/authorities in the country authorize these goals.

- 1.3 Besides broad statements of educational goals, are the objectives of secondary education specifically stated?

☐ Yes ☐ No

1.3.1 If yes, please provide a brief statement of these objectives.

1.3.2 Please state briefly how these objectives are formulated and which authority/authorities in the country authorize these objectives.

1.4 Are there statements of objectives of curriculum of secondary education?

☐ Yes ☐ No

1.4.1 If yes, please provide a brief statement of these objectives.

1.4.2 Please state how these are formulated and the authority/authorities which are responsible for authorizing them.

2. Structure

2.1 Please provide information on the duration (number of years) and the age of entry for the following levels in the educational structure of your country. Kindly indicate, if there are any, variations in the structure. For example, if there are two systems for primary (6 years and 7 years in duration), please enter "6/7" in the relevant box provided.

Levels	Duration	Age of Entry	Compulsory/Not Compulsory
Primary			
Secondary [Please specify stages/levels, if applicable, e.g. lower secondary, upper secondary]			
Tertiary/Post secondary			

2.2 If in your educational structure, secondary education is divided into distinct levels/stages, please state the administrative and/or pedagogical basis for this division.

2.3 Are your secondary schools classified into different types according to the curriculum provided? (e.g. comprehensive/general, academic, vocational, etc.)?

☐ Yes ☐ No

Secondary Education

If yes, please name the different types.

- 2.4 At which level does differentiation/diversification/specialization take place?

----- level. (e.g. lower, upper secondary, etc.)

- 2.5 Please state the number and percentage of the following types of schools by stream in your country. Please give 1986 data. If the data for 1986 are not available, please indicate the year to which the data apply. In case it is difficult to provide the stream-wise information, please give the relevant figures to the column of 'sub-total' only.

Type of School [Year:]	Stream	Stages/Levels (Please specify)						Total	
		No.	%	No.	%	No.	%	No.	%
(a) Government/public secondary schools (funded by the government)	General/Comprehensive								
	Vocational/Technical								
	Sub-total								
(b) Private/government aided secondary schools (subsidized by the government)	General/Comprehensive								
	Vocational/Technical								
	Sub-total								
(c) Private secondary schools (unaided by the government)	General/Comprehensive								
	Vocational/Technical								
	Sub-total								
(d) Others not included in (a)-(c) above (Please specify)	General/Comprehensive								
	Vocational/Technical								
	Sub-total								
(e) Total	General/Comprehensive								
	Vocational/Technical								
	Total								

- 2.6 Please state the number and percentage of students by stream in the following types of secondary schools. Please give 1986 data. If the data for 1986 are not available, please indicate the year to which the data apply. In case it is difficult to provide the stream-wise information, please give the relevant figures to the column of 'sub-total' only.

Type of School [Year:]	Stream	Stages/Levels (Please specify)						Total	
		No.	%	No.	%	No.	%	No.	%
(a) Government/public secondary schools (funded by the government)	General/Comprehensive								
	Vocational/Technical								
	Sub-total								
(b) Private/government aided secondary schools (subsidized by the government)	General/Comprehensive								
	Vocational/Technical								
	Sub-total								
(c) Private secondary schools (unaided by the government)	General/Comprehensive								
	Vocational/Technical								
	Sub-total								
(d) Others not included in (a)-(c) above (Please specify)	General/Comprehensive								
	Vocational/Technical								
	Sub-total								
(e) Total	General/Comprehensive								
	Vocational/Technical								
	Total								

Please note that in questions 2.5 and 2.6, '(b) private/government aided schools' include those which may be substantially or marginally funded by the government.

- 2.7 Is there any provision for secondary education outside the formal school system?

☐ Yes ☐ No

Secondary Education

- 2.7.1 If yes, please describe the system/systems for such provisions.

3. Management

The purpose of this section of the questionnaire is to obtain information on the role and responsibility of educational authorities at various levels in the process of decision-making with regard to some important aspects of the educational system.

- 3.1 Please describe the role of educational authorities/agencies at various levels (central/national, regional/state, provincial/district, local, school) with regard to the following:

- a) Policy
- b) Standards and Norms
- c) Curriculum
- d) Examination
- e) Funding
- f) Facilities and Materials
- g) Recruitment & Placement of Teachers
- h) Teacher Evaluation
- i) Supervision of Teachers
- j) Supervision of Administrators
- k) Others (Please specify)

- 3.2 For each (a - k above), what problems, if any, arise because of this structural arrangement and what steps are being taken to resolve these problems? Please state briefly.

4. Resources

4.1 Funds

- 4.1.1 What percentage of the Gross National Product (GNP) of your country was spent on education?

- a) 1978: _____
- b) 1982: _____
- c) 1986: _____

- 4.1.2 What percentage of the National/Country budget* was allocated to education?

- a) 1978: _____
- b) 1982: _____
- c) 1986: _____

* This includes allocation from the national and the state/provincial budgets if any.

4.1.3 What percentage of the education budget (government) was allocated to secondary education?

- a) 1978: _____
 b) 1982: _____
 c) 1986: _____

4.1.4 What percentage of the government budgetary allocation for secondary education was for salaries of the personnel connected with the secondary education?

- a) 1978: _____
 b) 1982: _____
 c) 1986: _____

If data for secondary education are not available, please give the percentage of the total government education budget spent on salaries of the personnel connected with education.

4.2 Physical Resources

4.2.1 Are there national guidelines regarding minimum standards in respect of the following functions? If the answer is yes, please briefly indicate for each the main guidelines.

- a) School buildings: ☐ Yes ☐ No

Main guidelines: _____

- b) Classrooms: ☐ Yes ☐ No

Main guidelines: _____

- c) Play ground: ☐ Yes ☐ No

Main guidelines: _____

- d) Laboratory Facilities: ☐ Yes ☐ No

Main guidelines: _____

- e) Library: ☐ Yes ☐ No

Main guidelines: _____

- f) Technical workshops: ☐ Yes ☐ No

Main guidelines: _____

Secondary Education

g) Furniture: ☐ Yes ☐ No

Main guidelines: -----

h) Instructional materials (textbooks, teaching aids, equipment, etc) : ☐ Yes ☐ No

Main guidelines: -----

i) Others (Please specify): ☐ Yes ☐ No

Main guidelines: -----

4.2.3 In which of the above areas (a-i), does your country face serious problems in meeting the minimum requirements and what measures are being taken to resolve these serious problems?

4.3 Human Resources

4.3.1 What is the teacher/student ratio at the secondary level at the latest year available? If possible, please give the teacher/student ratio at different stages/levels of secondary education.

Stage/level	Teacher/Student Ratio (Year:)

* Definition: Teacher includes all personnel (expressed in fulltime teacher equivalent) involved in actual classroom teaching irrespective of their qualifications and tenure.

4.3.2 Please state as a percentage of the total number of teachers in secondary schools:

a) Trained/Certificated teachers: -----%

b) Untrained teachers (those without professional qualifications): -----%

4.3.3 Is there an imbalance in the availability of teachers in different parts (regions) of your country?

☐ Yes ☐ No

If yes;

a) Please elaborate.

b) What measures have been and/or are being taken to redress this situation?

4.3.4 What is the percentage of female teachers at the secondary stage/level as a whole?

_____ % (Year:)

4.3.5 What is the percentage of female teachers at different stages/levels of secondary education?

Stage/level	Ratio of Female Teachers (Year:)

4.3.6 Are there any implications of the existing male/female teacher ratio?

☐ Yes ☐ No

If yes, please elaborate.

4.3.7 Please state the percentage of teachers with the following qualifications.

Stage/ level Qualification	Percentage of Teachers (Year:)		
Non-Graduate	%	%	%
Graduates	%	%	%
Post Graduate	%	%	%
Total	100.0%	100.0%	100.0%

Definition: Graduates include those who have a degree or its equivalent from a college or a university.

Secondary Education

5. Others

- 5.1 Are there other aspects relating to organization which have not been covered in this section but are important to an understanding of the general framework of secondary education? If yes, please describe these aspects.
- 5.2 Are there any problems relating to any aspect of the organization which you think are important but have not been covered in this section? If yes, please describe the problems and the measures taken and/or proposed to be taken to resolve those problems.

II. Enrolment

The purpose of this section of the questionnaire is to obtain information about requirements for students' entry to secondary education, in what numbers they attend, and for what duration.

1. Background

1.1 Is secondary school education compulsory in your country?

☐ Yes ☐ No

1.1.1 If yes, please state up to what age and/or to what level/stage secondary education is compulsory.

1.1.2 If no, please state if there are any plans to make it compulsory in the future.

1.2 In which of the following areas is secondary education free in your country? Please put a tick (V) in the appropriate column below if that component is free. If it is partly free please indicate.

Stage/Level	Tuition Fees	Textbooks	Other Instructional Materials	Accommodation	Transportation	Lunches	Uniforms	Others (Please specify)

1.3 In this regard, please describe briefly any special provisions you have to assist disadvantaged and/or minority groups in your country.

2. Transition, Enrolment and Completion Rates

The purpose of this question is three fold: viz, to find:

- a)
 - i) what percentage of students enter the secondary school after completing elementary school (Transition rate from elementary to secondary);
 - ii) what percentage of students enter the upper stage/level of secondary education after completing lower stage/level of secondary education (Transition rate from lower to upper secondary);

Secondary Education

b) what percentage of the total population by age group is enrolled at each stage/level of secondary education (Enrolment Rate);

c) what percentage of those enrolled at the first year complete each stage/level (Completion Rate).

2.1 Please supply the latest available data. Please indicate the year it was obtained.

a) i) Transition Rate from elementary to secondary:

$$= \frac{\text{Total number of first year secondary school students}}{\text{Total number of final year elementary school students (previous year)}} \times 100\%$$

ii) Transition rate from lower to upper secondary:

$$= \frac{\text{Total number of first year upper stage/level secondary school students}}{\text{Total number of final year lower stage/level secondary school students (previous year)}} \times 100\%$$

b) Enrolment Rate:

$$= \frac{\text{Total number of students in secondary schools at each stage/level}}{\text{Total number (in country) of the age group corresponding to the stage/level}} \times 100\%$$

c) Completion Rate (the percentage of the initial enrolment of students who complete each stage/level):

$$= \frac{\text{Total number of students who finish each stage/level}}{\text{Total number of students who enrolled at the first year of each stage/level}} \times 100\%$$

Stage/ level	Rates		
	Transition		Completion
	elementary to secondary	lower to upper secondary	

3. Drop-out Problems

- 3.1 What are the main reasons students drop-out of secondary school in your country? Please summarize, in order of importance, the reasons students drop-out of school.
- 3.2 If your country has problems arising from lower rates of attendance by students of disadvantaged and/or minority groups, please describe briefly, and comment on any strategies you have developed to address this problem.

III. CURRICULUM

Introduction

The purpose of this section of the questionnaire is to obtain information regarding curricular content and practices. Attention has been focussed on selected curricular aspects which include the concepts of core and electives, values education, work experience, and computer education, together with qualitative improvements in teaching materials.

Questionnaire items have been grouped in the following sections:

- (1) Responsibility for curriculum
- (2) Organization of curriculum
- (3) Specific curriculum areas:
 - a) Values education
 - b) Living skills (work experience)
 - c) Computer education
 - d) Others
- (4) Teaching-learning strategies
- (5) Educational materials

1. Responsibility for Curriculum

1.1 With regard to the following areas related to curriculum, please describe the role of educational authorities/agencies at various levels (central/national, state/provincial, local, school, etc.):

- a) Curriculum development
- b) Writing, printing, supply and distribution of textbooks and other instructional materials
- c) Guidance and supervision
- d) Evaluation
- e) Research
- f) Funding
- g) Others (Please specify)

- 1.2 If your country has experienced problems in any of these areas, please indicate what they are, and how these problems have been overcome or are proposed to be solved.

2. Organization of Curriculum

Curriculum embraces all learning activities, both formal and informal, which are conducted by schools. Organization of the curriculum refers to the manner in which learning areas have been identified, organized and offered as subjects or study areas to students.

- 2.1 Have there been major curricular reforms during the past ten years (e.g. total curricular reorganization, review of goals, objectives, etc.) in your country? Please indicate the year when these reforms were made, and where appropriate identify particular levels and subject areas.

2.2 Core areas

- 2.2.1 If a core component has been included in the curriculum, please indicate what subjects/areas/elements are included and for which levels. Please provide any further information regarding the core components if appropriate.

- 2.2.2 When there are separate subject streams/programmes, are common core subjects/areas offered to students?

☐ Yes ☐ No

- 2.2.3 Please state briefly why it is considered necessary to have a core in the curriculum.

- 2.2.4 If there have been new, reorganized or integrated subjects or study areas which have been incorporated to the core within the last five to ten years, please indicate these areas, the levels at which this has occurred and the reasons for this inclusion.

- 2.2.5 Where there are differences in core offerings, please indicate these for the different subject streams.

- 2.3 Academic and vocational electives (i.e. electives which provide an extension to academic and vocational subjects or study areas):

Secondary Education

- 2.3.1 Please indicate (in separate lists, if appropriate, for academic and vocational) the electives that are offered at various levels and their approximate time allocation. (It may be convenient to group some electives if the list is too long).

Stage/level	Electives	Time Allocation

- 2.3.2 Please indicate the numbers of electives students are able to choose at various stages/levels.

- 2.3.3 What attempts, if any, have been made to integrate academic and vocational electives?

- 2.3.4 If electives are offered at different levels, please briefly state the rationale for this.

- 2.4 If there are any subjects/programmes beyond those offered in a 'core' which are compulsory, please indicate briefly the nature of these requirements.

2.5 Extra-curricular (or co-curricular) activities

- 2.5.1 What are the different kinds of extra-curricular activities in secondary schools?

- 2.5.2 Please describe the nature and extent of student participation in these activities.

2.6 Curriculum load

- 2.6.1 If curriculum "load" is a source of concern, please indicate the nature and extent of this concern, and any measures that have been taken to reduce the "load".

2.7 Social issues

- 2.7.1 List those issues/problems (e.g., international understanding, cultural heritage) which are reflected in the curriculum in your country.

- 2.7.2 Are there any factors such as examination pressure which influence/distort the curriculum in your country? If yes, please state briefly.

3. Specific Curriculum Areas

3.1 Values education/religious education/comparative religions

3.1.1 Are these areas included in the curriculum?

Areas	Stage/level	Yes	No	Comment
Values education Religious education Comparative religions				

3.1.2 Objectives: Please state briefly the objectives of these programmes.

3.1.3 Place in the curriculum: Please indicate in the table below: (a) an estimate of the number of schools in which these areas are taught; (b) the levels at which they are taught; and (c) how the areas are incorporated in the curriculum.

Curriculum Area	Number of schools				Treatment				Stage/ Level	Comment
	All	Most	Some	None	Core	Elective	Extra-curricular	Integrated		
Values education Religious education Comparative religions										

3.1.4 Where there is a separate syllabus for these curriculum areas, please give a brief outline of their content and organization.

3.1.5 Instructional materials: Please give an indication of the types of the instructional materials that are available for: (a) teachers, and (b) students.

3.1.6 Teaching/learning strategies: What particular types of teaching/learning strategies are applied in teaching these areas?

3.1.7 Training requirements: If specially trained teachers are appointed to teach these areas, indicate briefly the type of training that is required.

3.1.8 Are there any other issues/problems, particular approaches that have been used to overcome these problems, or successful initiatives in this area that you would like to describe? Please describe them briefly.

Secondary Education

3.2 Living (life) skills/work experience/community living

3.2.1 Are these areas included in the curriculum?

Areas	Stage/level	Yes	No	Comment
Living (life) skills				
Work experience				
Community living				

3.2.2 Objectives: Please state briefly the objectives of these programmes.

3.2.3 Place in the curriculum: Please indicate in the table below: (a) an estimate of the number of schools in which these areas are taught; (b) the levels at which they are taught; and (c) how the areas are incorporated in the curriculum.

Curriculum Area	Number of schools				Treatment			Stage/level	Comment
	ALL	Most	Some	None	Core Elective	Extra-curricular	Integrated		
Living skills									
Work experience									
Community living									

3.2.4 Where there is a separate syllabus for these curriculum areas, please give a brief outline of their content and organization.

3.2.5 Instructional materials: Please give an indication of the types of the instructional materials that are available for: (a) teachers, and (b) students.

3.2.6 Teaching/learning strategies: What particular types of teaching/learning strategies are applied in these areas?

3.2.7 Training requirements: If specially trained teachers are appointed to teach these areas, indicate briefly the type of training that is required.

3.2.8 Work experience: What arrangements, if any, are made for students to gain work experience?

3.2.9 Are there any other issues/problems, particular approaches that have been used for overcome these problems, or successful initiatives in this area that you would like to describe? Please describe them briefly.

3.3 Computer education

3.3.1 Objectives: Please state briefly the objectives of the computer education programme.

3.3.2 Place in the curriculum: Please indicate in the table below: (a) an estimate of the number of schools in which this area is taught; (b) the levels at which it is taught; and (c) how the area is incorporated in the curriculum.

Curriculum Area	Number of schools				Treatment				Stage/ level	Comment
	All	Most	Some	None	Core	Elective	Extra-curricular	Integrated		
*a)										
*b)										
*c)										
*d)										
*e)										

*a) As a means of providing total instruction in the curriculum (i.e. where entire instruction is provided by computers).

*b) As a supplementary aid to teaching and learning.

*c) To increase students' computer awareness and skills involved.

*d) As a professional subject area at vocational/technical course.

*e) Others (Please specify).

3.3.3 Where there is a separate syllabus for computer education, please give a brief outline of its content and organization.

3.3.4 Have any pilot projects been used and to what extent?

3.3.5 Are there any ways in which informal approaches are used in computer education?

Secondary Education

3.3.6 Instructional materials: Please give an indication of the types of the instructional materials that are available for: (a) teachers, and (b) students.

3.3.7 Teaching/learning strategies: What particular types of teaching/learning strategies are applied in this area?

3.3.8 Training requirements: If specially trained teachers are appointed to teach this area, indicate briefly the type of training that is required.

3.3.9 Are there any other issues/problems, particular approaches that have been used to overcome these problems or successful initiatives in computer education that you would like to describe? If so, please describe briefly.

3.4 Evaluation: Are there any formal evaluation studies that have been conducted in these specific curriculum areas? Please indicate briefly the results of these studies.

3.5 Other specific curriculum areas

3.5.1 If there are any other specific curriculum areas that are considered to be more significant, please use a similar format to that applied in items 3.1 - 3.3 and attach as additional information.

4. Teaching-Learning Strategies

The success of any school system depends mainly on an effective teaching-learning process. The purpose of this section is to identify key areas in which strategies have been applied or planned to consider this issue.

4.1 Please indicate below the subjects/activity areas in which new approaches have been applied.

4.2 What rationale has been adopted in using such approaches.

4.3 Please indicate what results have been achieved or are anticipated in the future.

4.4 Issues and problems

4.4.1 Have any issues/problems occurred in the implementation of any of these teaching-learning strategies?

- 4.4.2 Please indicate the strategies that have been evolved or are being planned to overcome these problems/issues.

5. Educational Materials

5.1 Textbooks

- 5.1.1 To what extent are textbooks used as an instructional aid in the curriculum? Add further notes on the stages/levels that are appropriate in the 'comment' column.

Use	Comment
a) They are the only one source of information.	
b) They are the major source of information and classroom activities.	
c) They are a source of information and classroom activities, and are supplemented by a range of resource materials (e.g. film, videos, activity work-books, class sets).	
d) Others - please specify.	

- 5.1.2 Are textbooks prescribed or recommended, and is there a range of alternatives? Please indicate the source of these prescriptions or recommendations (i.e. national, local, school).
- 5.1.3 If there are any guidelines established for the preparation of textbooks or instructional materials, please indicate briefly what they are.
- 5.1.4 The following list identifies a range of problems encountered by some countries. Please indicate the extent to which the problem applies and add further comments, if necessary, on the relevant stage/level.

Secondary Education

Problem	Seriousness				Comment
	Very	Moderate	Little	None	
a) Textbooks are available but are too expensive for parents/students to purchase.					
b) There are few textbooks available in the medium of instruction.					
c) Available textbooks are outdated.					
d) There are no textbooks available.					
e) There is a confusing proliferation of textbooks.					
f) Others - please specify.					

5.1.5 In relation to the problems stated in the above table, what measures, if any, are being taken to resolve them?

5.2 Innovative approaches

Many countries have developed very significant innovations in educational materials to support teaching and learning practices.

5.2.1 Please indicate a range of examples of such initiatives, providing a brief description.

Initiative	Description

5.2.2 If there is a stated rationale behind such initiatives, please indicate briefly what it is.

5.2.3 Such innovative materials can be prepared/produced by, for example, central agencies or ministries of education, by commercial sponsors or by schools. Please indicate how such materials generally are prepared/produced in your country.

5.2.4 Please indicate briefly the extent of use of these materials by schools.

Questionnaire

5.2.5 Please describe what particular resources might have been identified to provide special encouragement to this area of innovation.

IV. Teacher Preparation

The purpose of this section is to obtain information about entry requirements for teacher training, the nature of the training itself, and about provisions for on-going in-service training. There are two final questions about teachers' conditions of service.

1. Pre-service Training

The purpose of this question is four-fold: viz, to establish

- (1) what are the minimum entry requirements of applicants for teacher training courses;
- (2) what selection procedures are followed;
- (3) what the course content and the duration of the training are; and
- (4) what provisions there are, if any, for probationary service for teachers.

- 1.1 What are the minimum entry requirements of applicants for teacher training courses?
- 1.2 In some countries, there are more students with the minimum entry qualifications wanting to enter training than there are places available. If this is the case in your country, please describe how you select the successful applicants.
- 1.3 Is teacher training in your country concurrent (i.e. trainees acquire curricular and/or professional and teaching related subjects and skills simultaneously) or end-on (i.e. trainees attend a university or similar institution first, and then undergo a separate training course)? Please describe briefly the practice in your country.
- 1.4 What is the minimum duration of secondary teacher training in your country for each level/stage?
- 1.5 Briefly describe the content of your teacher training courses. Please give appropriate weightages (%) given to each part of the course (e.g., professional studies: 20%; teaching-related subjects: 30%; skills for conducting extra-curricular activities: 10%).

1.6 What provisions are there, if any, for probationary services for teachers?

2. In-service Training

2.1 Listed below are some of the principal reasons why it is necessary for teachers to have continuing in-service training. Please add to the list if you wish. Please tick those which apply to your country.

- To assist keeping teachers up-to-date with subject content.
- To assist teachers with the introduction of new curricula.
- To assist keeping teachers up-to-date with teaching methods.
- To assist keeping teachers up-to-date with classroom management.
- To assist keeping teachers up-to-date with assessment procedures.
- To prepare teachers better for professional advancement.
- To retrain teachers required to teach subjects for which they are not adequately trained.
- Others (please specify):

2.1.1 Please give the most important reason(s) in your country from among the reasons listed above.

2.2 Below are listed the agencies most likely to be responsible for in-service training. Please add to the list if you need. Which of these agencies is most active in mounting in-service courses in your country? List them from 1 to 5 in order of importance; the number 1 indicating the agency most active.

- National/central agencies
- The state/regional
- Districts
- Schools
- Others (please specify)

2.3 Are there national/state plans for future in-service activities in your country?

☐ Yes ☐ No

Secondary Education

- 2.4 Please describe briefly any strategies you have developed to make in-service training more widely available and/or more effective.

3. Conditions of Service

- 3.1 Below are listed some areas of concern commonly felt by teachers about their conditions of service. Please add to the list if you wish. Then tick those areas which are of concern in your country.

- Unsatisfactory rates of pay
- Excessive class-contact teaching hours
- Total work load
- Lack of promotional opportunities
- Low social status
- Excessively large number of students in classes
- Constant changes in curriculum
- The requirement to undertake extra-curricular activities
- Shortage of instructional materials
- Lack of specialist support services (e.g. counsellors)
- Disciplinary problems with students
- Excessive administrative (non-teaching) responsibilities
- Others (Please specify)

- 3.1.1 Please briefly describe the most important area(s) of concern of teachers in your country from among the areas listed above.

- 3.2 Please briefly describe any recent changes in teachers' conditions of service which have resulted in raising teachers' morale.

V. ASSESSMENT

Introduction

The purpose of this section of the questionnaire is to obtain information about the full range of assessment activities in secondary schools. The questions are designed to elicit information about the objectives of assessment, the kinds of assessment used to achieve these objectives, and the scope of assessment practices.

For the purposes of this section, the word assessment is used to include all those procedures, formal and informal, school-based or nation-wide, used to fulfill the objectives.

1. Student Assessment

1.1 Please read the following list of commonly held objectives of student assessment. If necessary, please add to the list.

- a) To measure the effectiveness of the teaching/learning process.
- b) To measure students' present levels of achievement.
- c) To measure one student's progress against others' for future selection or promotion purposes.
- d) To provide information for vocational guidance to students.
- e) To evaluate the relevance of the curriculum.
- f) To monitor national standards in various subjects of the curriculum.
- g) To measure progress towards the accomplishment of national goals.
- h) Others (please specify).

Please describe briefly your country's assessment objectives, and the purposes for which they are most commonly used.

Assessment Objectives	Purposes Used

Secondary Education

1.1.1 Please describe briefly any problems your country is having meeting these objectives.

1.2 Do you have national/public examinations at secondary level?

☐ Yes ☐ No

1.2.1 If yes, please describe them briefly.

1.3 Is the continuous (formative) student assessment practised widely in your country? If yes, please describe briefly.

1.4 Who is responsible in your country for summative assessment of student performance?

Stage/ level	School cluster	School	Teacher	Others (Please specify)

1.5 Briefly describe any assessment procedures practised in your country to select those students who wish to enter any place of higher education.

1.6 Please describe briefly any problems, particularly in the curriculum area, which arise from examinations mentioned in 1.2 above.

1.7 What forms of student assessment are practised in your country at each level?

Stage/ Level	Norm-referenced		Criterion-referenced		Others (Please state)
	Standardized Tests	Non-standardized Tests	Standardized Tests	Non-standardized Tests	

1.7.1 If you use any combination of the above, please describe briefly.

1.8 Briefly describe any procedures your country uses to standardize national/public examinations to ensure:

- a) that the level of difficulty is approximately the same from year to year.
- b) that markers/examiners/evaluators set broadly the same standards.
- c) that the degree of difficulty in any one subject is broadly similar to all others.
- d) reliability and validity.

1.9 Do you have any procedures for measuring:

- a) changes in students' behaviour/attitudes;

☐ Yes ☐ No

- b) students' extra-curricular activities.

☐ Yes ☐ No

1.9.1 If your answer is yes to a) and/or b) above, please describe the procedures briefly.

2. Teacher Assessment

2.1 Does your country have any procedures for assessing teacher performance?

☐ Yes ☐ No

2.1.1 If your answer is yes, please describe briefly your objectives for teacher assessment.

2.1.2 If your answer to question 2.1 is yes, please list the criteria on which the assessment of teacher is based.

2.1.3 If your answer to question 2.1 is yes, please answer the following questions:

- a) Is assessment compulsory or optional?

☐ Compulsory
☐ Optional
☐ Others (please specify)

Secondary Education

b) Which teachers are assessed?

- ☐ Headmaster/principal
- ☐ Senior teachers
- ☐ Beginning teachers
- ☐ Assistant teachers
- ☐ Required teachers
- ☐ Others (Please specify)

c) Who carries out the assessment?

- ☐ Inspectors
- ☐ Principals
- ☐ Others (Please specify)

d) How often is assessment carried out?

- ☐ More than once a year
- ☐ Annually
- ☐ Others (Please specify)

e) Please describe briefly any procedures you have to assess them.

2.2 Please describe briefly any significant problems arising from your procedures and also any strategies which have been particularly successful.

3. Administrator Assessment

3.1 Does your country have any special procedures for assessing the performance of principals/headmasters?

☐ Yes ☐ No

3.1.1 If your answer is yes, please describe briefly the criteria on which the assessment of principals/ headmasters is based.

3.1.2 If your answer to question 3.1 is yes, please answer the following questions:

a) Is assessment compulsory or optional?

- ☐ Compulsory
- ☐ Optional
- ☐ Others (Please specify)

b) Who carries out the assessment?

- ☐ Inspectors
☐ Others (Please specify)

c) How often is assessment carried out?

- ☐ Once a year
☐ Twice a year
☐ Others (Please specify)

d) Please briefly describe any procedures you have to assess them.

3.1.3 If your answer to question 3.1 is yes, please state whether the procedures are implemented:

- ☐ Nationally
☐ Provincial/state level
☐ Local/district level

3.1.4 If your answer to question 3.1 is yes, please comment briefly on whether your procedures have been successful in improving principal's performance.

4. School Assessment

4.1 Does your country have any procedures for assessing the standard of performance of schools as a whole (e.g., physical facilities, teaching standards, student performance.)?

- ☐ Yes ☐ No

4.1.1 If your answer is yes, please answer the following questions:

a) Is school assessment compulsory or optional?

- ☐ Compulsory
☐ Optional
☐ Others (Please specify)

b) Who does the assessment?

- ☐ Inspectors
☐ Principal/headmaster
☐ Others (Please specify)

Secondary Education

c) Is assessment carried out:

- ☐ Nationally
- ☐ State/regionally
- ☐ Locally/school cluster

d) How often is assessment carried out?

- ☐ Annually
- ☐ Bi-annually
- ☐ Others (Please specify)

4.1.2 If your answer to question 4.1 is yes, please comment briefly on whether your procedures have been successful in improving the standard and performance of each school.

RECOMMENDATIONS

The main intention of this regional workshop was to launch a study on the 'state of the art review' of secondary education in Asia and the Pacific, with a view to taking appropriate steps to improve:

- a) the quality of the teaching/learning process in this segment of education; and
- b) the relevance of curriculum to meet the emerging needs of a changing society dominated by science and technology.

Hence, the workshop participants recommend the following to the Unesco Regional Office for Education in Asia and the Pacific in Bangkok:

- (1) Assist the countries in this study by way of providing funds;
- (2) Assist in the finalization of the report;
- (3) Strengthen mechanism to disseminate information among member countries regarding research studies in the area of secondary education;
- (4) Assist and encourage member countries to initiate further research on issues arising out of this study, and

The workshop participants also recommend to the individual countries of the region to provide resources, facilities and personnel for conducting this study at the national level.

ANNEX I

LIST OF PARTICIPANTS

Participants

Australia	Dr. Robin Chapman Regional Director of Education Ministry of Education Maroondah Region 39 Ringwood Street Ringwood, Victoria
Bangladesh	Mrs. U. S. Sakina Begum Associate Professor Teachers' Training College Dhaka-5
China	Mr. Gao, Hang Deputy Director and Deputy Editor-in- Chief People's Education Press 55 Sha Tan Hon Street Beijing
China	Mrs. Fu, Li Lecturer Beijing Education College No. 2 Wenxing Street Xizhimenwai Beijing
India	Prof. Arjun Dev Department of Education in Social Sciences and Humanities National Council of Educational Research and Training (NCERT) Sri Aurobindo Marg New Delhi - 110016
Japan	Mr. Miharuru Kajita Chief of the Section 4 Research Department IV NIER, Tokyo

Secondary Education

Malaysia	Mr. M. P. Prabhakar Deputy Director Curriculum Development Centre Ministry of Education Pesiaran Duta, Off Jalan Duta 50480 Kuala Lumpur
Nepal	Mr. Gauri N. Bachhar Acting Director Mid-Western Regional Directorate Birendranagar
New Zealand	Mr. Arch Gilchrist Director Schools Division Department of Education Private Bag Wellington
Pakistan	Mr. Shahid Shamsi Principal Islamabad Model College F- 8/4 Islamabad
Papua New Guinea	Mr. John Maela Secondary Inspector Education Office P. O. Box 315 Lae
Philippines	Dr. Ricarda P. De Castro Senior Educational Researcher Bureau of Secondary Education Ministry of Education, Culture and Sports Palacio del Gobernador, Intramuros Manila
Republic of Korea	Dr. Chung, Chan-young Chief for Educational Administration Research Korean Educational Development Institute (KEDI) 20-1 Umyeon-Dong, Gangnan-Gu Seoul
Republic of Korea	Dr. Lee Joong Suk Associate Professor Korea National University of Education 7 Darakri, Gangnae-myun Cheongwon-gun Chungbuk

List of Participants

Sri Lanka	Mr. M. M. Premaratne Director of Secondary Education Curriculum Development Centre 255 Baudhaloka Mawatha Colombo 07
Thailand	Mr. Suwat Ngerncham Director Planning Division Department of General Education Ministry of Education Bangkok 10300
Western Samoa	Mrs. Karoline Fuatai Deputy Principal Samoa College P. O. Box 205 Apia

Participant-observer

Singapore	Miss Jenny Yong Sow Chun Senior Inspector of Schools Ministry of Education Kay Siang Road Singapore 1024
-----------	--

NIER Secretariat

Mr. Isao Suzuki	Director General
Mr. Takehide Yokoo	Deputy Director General
Mr. Satoshi Kawanobe	Director External Service Department
Mr. Toshio Kanaya	Chief Section for Educational Co-operation in Asia
Mr. Nobuya Higuchi	Senior Researcher Ditto
Mr. Ryo Watanabe	Researcher Ditto
Mr. Noriaki Sagara	Coordinator in Research and Planning
Mr. Akihito Kosakai	Associate Fellow attached to the Section for Educational Co-operation in Asia

ANNEX I I

LIST OF WORKING GROUP MEMBERS

Group I:

Dr. Robin Chapman (Australia) - Chairperson
Mrs. U. S. Sakina Begum (Bangladesh)
Mr. M. P. Prabhakar (Malaysia)
Mr. Shahid Shamsi (Pakistan)
Mr. John Maela (Papua New Guinea)

Group II:

Mrs. Karoline Fuatai (Western Samoa) - Chairperson
Mr. Gao, Hang (China)
Mrs. Fu, Li (China)
Mr. Miharu Kajita (Japan)
Mr. Arch Gilchrist (New Zealand)
Dr. Lee Joong Suk (Republic of Korea)
Mr. Suwat Ngerincham (Thailand)

Group III:

Prof. Arjun Dev (India) - Chairperson
Mr. Gauri N. Bachhar (Nepal)
Dr. Ricarda P. De Castro (Philippines)
Dr. Chung, Chan-young (Republic of Korea)
Miss Jenny Yong Sow Chun (Singapore)
Mr. M. M. Premaratne (Sri Lanka)